MODEL G0514X/G0514X2/G0514X3
EXTREME SERIES BANDSAW
OWNER'S MANUAL

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WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.
(FOR MODELS G0514X, G0514X3 MANUFACTURED SINCE 10/05)
(FOR MODEL G0514X2 MANUFACTURED SINCE 4/07)
#EWTR7787 PRINTED IN TAIWAN

⚠ WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

Failure to read, understand and follow the instructions given in this manual may result in serious personal injury, including amputation, electrocution or death.

The owner of this machine/equipment is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, blade/cutter integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

⚠ WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **Arsenic and chromium from chemically-treated lumber.**

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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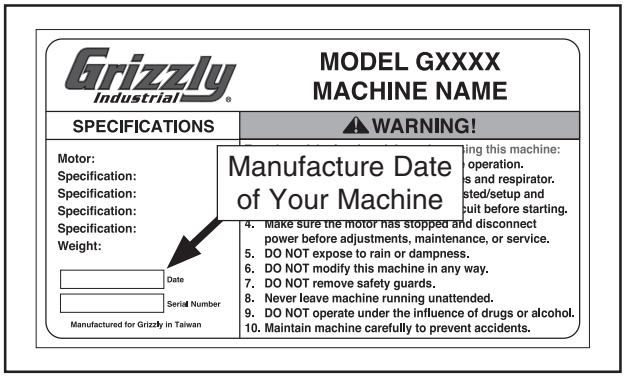
INTRODUCTION

Manual Accuracy

We are proud to offer this manual with your new machine! We've made every effort to be exact with the instructions, specifications, drawings, and photographs of the machine we used when writing this manual. However, sometimes errors do happen and we apologize for them.

Also, owing to our policy of continuous improvement, **your machine may not exactly match the manual**. If you find this to be the case, and the difference between the manual and machine leaves you in doubt, check our website for the latest manual update or call technical support for help.

Before calling, find the manufacture date of your machine by looking at the date stamped into the machine ID label (see below). This will help us determine if the manual version you received matches the manufacture date of your machine.



For your convenience, we post all available manuals and manual updates for free on our website at **www.grizzly.com**. Any updates to your model of machine will be reflected in these documents as soon as they are complete.

Contact Info

We stand behind our machines. If you have any service questions, parts requests or general questions about the machine, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
c/o Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

Machine Description

The bandsaw is a versatile cuting tool that can be used to perform a wide variety of cuts in wood workpieces.

The bandsaw features a flexible steel band with teeth on one edge that fits around two wheels, which rotate during operation to drive the blade.

When a workpiece is pushed against the moving blade, the downward force of the blade teeth scrape across the workpiece and, in effect, cut it. Blade guides on both sides of the cutting area keep the blade from flexing or being pushed off the wheels from the horizontal pressure of the workpiece while cutting.

Identification (G0514X)

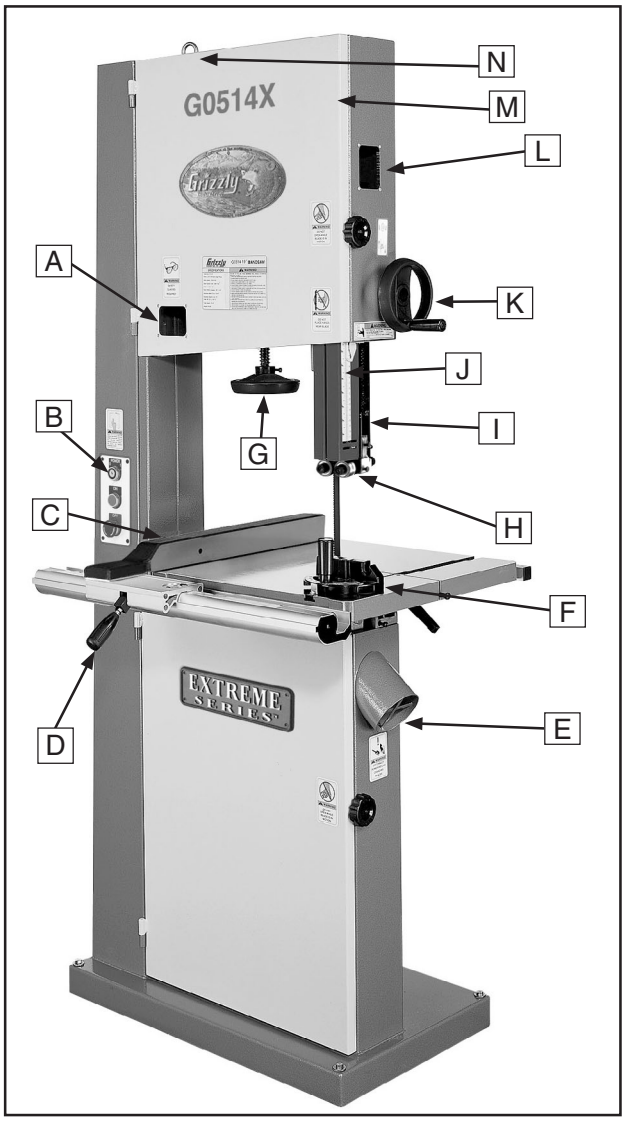


Figure 1. Bandsaw front view.

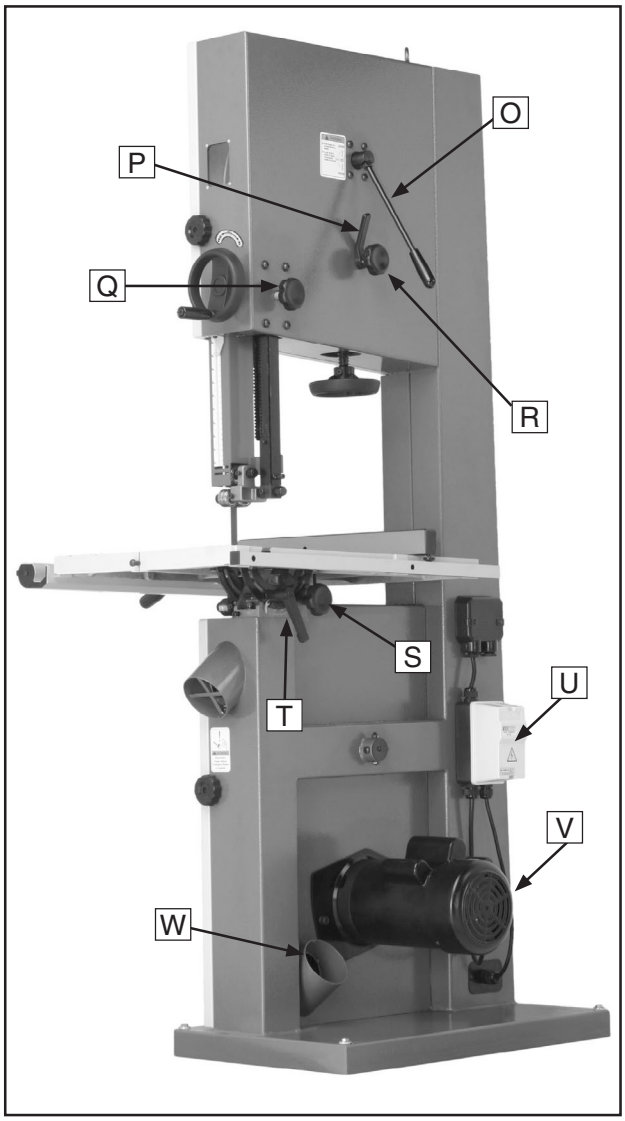


Figure 2. Bandsaw rear view.

A. Tension Indicator Window
B. Key Switch, Start and Stop Buttons
C. Rip Fence
D. Fence Locking Lever
E. Dust Port 4"
F. Miter Gauge
G. Blade Tension Handwheel
H. Ball Bearing Blade Guides
I. Guide Post
J. Cutting Height Scale
K. Guide Post Handwheel
L. Blade Tracking Window
M. Hinged Door
N. Eye Bolt
O. Quick Release Blade Tension Lever
P. Blade Tracking Lock Lever
Q. Guide Post Lock Knob
R. Blade Tracking Knob
S. Table Tilt Knob
T. Table Tilt Lock Handle
U. Magnetic Switch
V. Motor
W. Dust Port 4"

Identification (G0514X2/G0514X3)

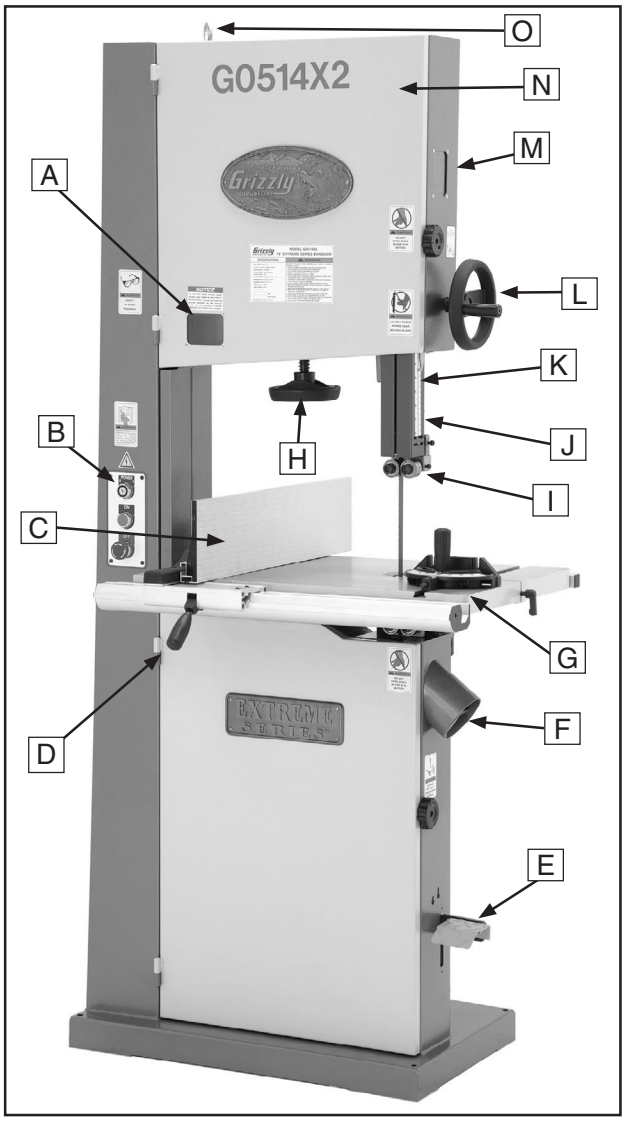


Figure 3. Bandsaw front view.

A. Tension Indicator Window
B. Key Switch, Start and Stop Buttons
C. Rip Fence
D. Fence Locking Lever
E. Foot Brake
F. Dust Port 4"
G. Miter Gauge
H. Blade Tension Handwheel
I. Ball Bearing Blade Guides
J. Guide Post
K. Cutting Height Scale
L. Guide Post Handwheel
M. Blade Tracking Window
N. Hinged Wheel Cover

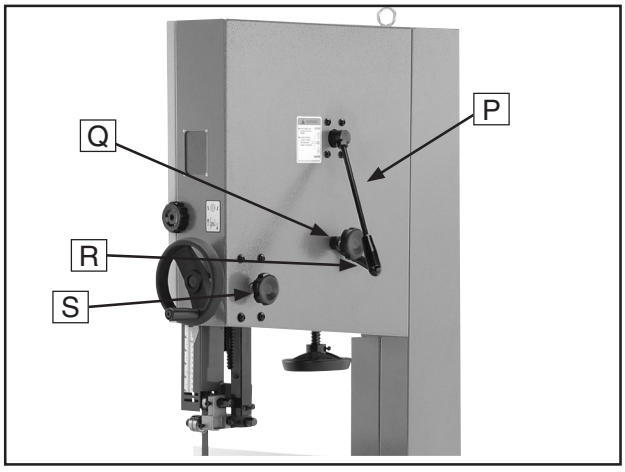


Figure 4. Rear upper controls.

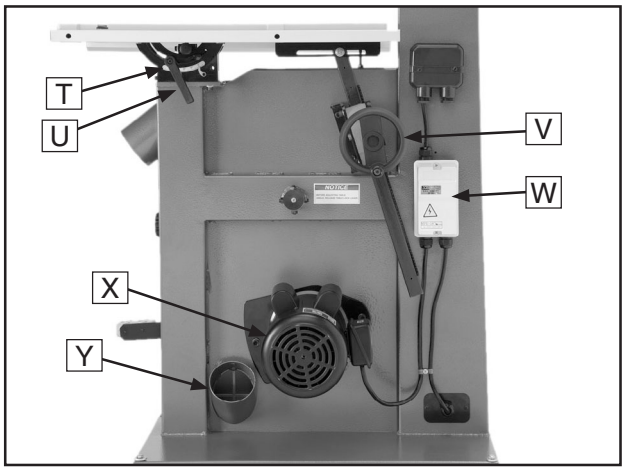


Figure 5. Table tilt controls.

O. Eye Bolt
P. Quick Release Blade Tension Lever
Q. Blade Tracking Knob
R. Blade Tracking Lock Lever
S. Guide Post Lock Knob
T. Table Tilt Scale
U. Table Tilt Lock Lever
V. Table Tilt Handwheel
W. Magnetic Switch
X. Motor
Y. Dust Port 4"

MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

MODEL G0514X 19" 3 HP EXTREME SERIES BANDSAW

Product Dimensions:

Weight..... 383 lbs.
Length/Width/Height..... 36 x 32 x 76 in.
Foot Print (Length/Width)..... 29-1/2 x 17-3/4 in.

Shipping Dimensions:

Type..... Wood Slat Crate
Content..... Machine
Weight..... 447 lbs.
Length/Width/Height..... 21 x 33 x 85 in.

Electrical:

Power Requirement..... 220V Single-Phase
Switch..... Magnetic with Thermal Overload Protection
Switch Voltage..... 220V
Minimum Circuit Size..... 20 amp
Plug Included..... No
Recommended Plug/Outlet Type..... 6-20 or L6-20

Motors:

Main

Type..... TEFC Capacitor Start Induction
Horsepower..... 3 HP
Voltage..... 220V
Prewired..... 220V
Phase..... Single
Amps..... 16A
Speed..... 1725 RPM
Cycle..... 60 Hz
Number Of Speeds..... 1
Power Transfer ..... Belt Drive
Bearings..... Shielded and Permanently Lubricated

Main Specifications:

Operation

Blade Speeds..... 1700, 3500 FPM
Table Tilt..... Left 5, Right 45 deg.

Cutting Capacities

Maximum Cutting Height..... 12 in.
Max Capacity Under Handwheel..... 12 in.
Max Capacity Left of Blade..... 18-1/4 in.

Blade Information

Standard Blade Length	143 in.
Blade Width Range	1/8 - 1-1/4 in.
Upper Blade Guides	Ball Bearing
Lower Blade Guides	Ball Bearing
Guide Post Size	1.180 in. (30mm)
Guide Post Type	Sq. Tubing, 0.075 in. Wall Thickness

Table Information

Table Length	26-3/4 in.
Table Width	19 in.
Table Thickness	1-1/2 in.
Floor to Table Height	37-1/2 in.

Fence Information

Locks in Front	Yes
Locks in Rear	No
Adjustable for Blade Lead	Yes

Construction

Table Construction	Precision Ground Cast Iron
Rip Fence	Cast Iron Fence with Extruded Aluminum Resaw Fence
Base Construction	Formed Steel
Body Construction	Formed Steel
Upper Wheel	Computer Balanced Cast Iron
Lower Wheel	Computer Balanced Cast Iron
Tire Material	Polyurethane
Wheel Cover	Pre-Formed Steel
Paint	Powder Coated

Other Related Information

Wheel Diameter	18-7/8 in.
Wheel Width	1-1/4 in.
Number of Dust Ports	2
Dust Port Size	4 in.

Other Specifications:

ISO Factory	ISO 9001
Country Of Origin	Taiwan
Warranty	1 Year
Serial Number Location	Label on Top Cover
Assembly Time	1 hour

Features:

Blade Tension Indicator
Micro Adjusting Gear Table
Height Scale Measurement
Fence with Scale and Magnifying Window
Deluxe Cast Iron Fence with Extruded Aluminum Resaw Fence
Miter Gauge
Quick Change Blade Release/Tensioning
Rack and Pinion Upper Guide Adjustment
Includes 3/4" Blade
Hinged Wheel Covers

MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

MODEL G0514X2 19" EXTREME BANDSAW-3HP, SINGLE PHASE

Product Dimensions:

Weight..... 427 lbs.
Length/Width/Height..... 32 x 36 x 76 in.
Foot Print (Length/Width)..... 29-1/2 x 17-3/4 in.

Shipping Dimensions:

Type..... Wood Slate
Content..... Machine
Weight..... 491 lbs.
Length/Width/Height..... 21 x 33 x 85 in.

Electrical:

Switch..... Magnetic with Thermal Overload Protection
Switch Voltage..... 220V
Minimum Circuit Size..... 20 amp
Plug Included..... No

Motors:

Main

Type..... TEFC Capacitor Start Induction
Horsepower..... 3 HP
Voltage..... 220V
Prewired..... 220V
Phase..... Single
Amps..... 16A
Speed..... 1725 RPM
Cycle..... 60 Hz
Number Of Speeds..... 1
Power Transfer ..... Belt Drive
Bearings..... Shielded and Permanently Lubricated

Main Specifications:

Operation

Blade Speeds..... 1700, 3500 FPM
Table Tilt..... Left 5, Right 45 deg.

Cutting Capacities

Maximum Cutting Height..... 12 in.
Max Resaw Height..... 12 in.
Max Capacity Under Handwheel..... 12 in.
Max Capacity Left of Blade..... 18-1/4 in.
Left of Blade W/Fence..... 16 in.

Blade Information

Standard Blade Length	143 in.
Blade Width Range	1/8 - 1-1/4 in.
Upper Blade Guides	Ball Bearing
Lower Blade Guides	Ball Bearing
Guide Post Size	1.180 in. (30mm)
Guide Post Type	Sq. Tubing, 0.075 in. Wall Thickness

Table Information

Table Length	26-3/4 in.
Table Width	19 in.
Table Thickness	1-1/2 in.
Floor to Table Height	37-1/2 in.

Fence Information

Locks in Front	Yes
Locks in Rear	No
Adjustable for Blade Lead	Yes

Construction

Table Construction	Precision Ground Cast Iron
Rip Fence	Cast Iron Fence & Extruded Aluminum Rip Fence
Base Construction	Formed Steel
Body Construction	Formed Steel
Upper Wheel	Computer Balanced Cast Iron
Lower Wheel	Computer Balanced Cast Iron
Tire Material	Polyurethane
Wheel Cover	Pre-Formed Steel
Paint	Powder Coated

Other Related Information

Wheel Diameter	18-7/8 in.
Wheel Width	1-1/4 in.
Number of Dust Ports	2
Dust Port Size	4 in.
Mobile Base	G7315

Other Specifications:

ISO Factory	ISO 9001
Country Of Origin	Taiwan
Warranty	1 Year
Serial Number Location	ID Label on Upper Wheel Cover
Assembly Time	1 hour

Features:

Cast Iron Table Trunnions
Ball Bearing Blade Guides
Quick Change Blade Releas/Tensioner
Micro-Adjusting Rack & Pinion Table Tilt
Rack & pinion Upper Blade Guide Height Adjustment
Computer Balanced Cast Iron Wheels
Blade Tension Indicator
Magnifying Window over Fence Scale
Height Scale for Upper Blade Guides
Blade Tracking Window
Hinged Wheel Covers
Included Miter Guage
Included 3/4" Blade
Two 4" Dust Ports
Deluxe Cast Iron Fence with Extruded Aluminum Resaw Fence Attachment
Foot Brake Stop

MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

MODEL G0514X3 19" 3 HP 3-PHASE EXTREME SERIES BANDSAW

Product Dimensions:

Weight..... 421 lbs.
Length/Width/Height..... 36 x 32 x 76 in.
Foot Print (Length/Width)..... 29-1/2 x 17-3/4 in.

Shipping Dimensions:

Type..... Wood Slat Crate
Content..... Machine
Weight..... 485 lbs.
Length/Width/Height..... 21 x 33 x 85 in.

Electrical:

Power Requirement..... 220V 3-Phase or 440V
Switch..... Magnetic with Thermal Overload Protection
Switch Voltage..... 220V
Minimum Circuit Size..... 15 amp at 220V, 10 amp at 440V
Plug Included..... No
Recommended Plug/Outlet Type..... L15-15 at 220V; Locking Disconnect Switch at 440V

Motors:

Main

Type..... TEFC Induction
Horsepower..... 3 HP
Voltage..... 220/440V
Prewired..... 220V
Phase..... Three
Amps..... 9/4.5A
Speed..... 1725 RPM
Cycle..... 60 Hz
Number Of Speeds..... 1
Power Transfer ..... Belt Drive
Bearings..... Shielded and Permanently Lubricated

Main Specifications:

Operation

Blade Speeds..... 1700, 3500 FPM
Table Tilt..... Left 5, Right 45 deg.

Cutting Capacities

Maximum Cutting Height..... 12 in.
Max Capacity Under Handwheel..... 12 in.
Max Capacity Left of Blade..... 18-1/4 in.

Blade Information

Standard Blade Length	143 in.
Blade Width Range	1/8 - 1-1/4 in.
Upper Blade Guides	Ball Bearing
Lower Blade Guides	Ball Bearing
Guide Post Size	1.180 in. (30mm)
Guide Post Type	Sq. Tubing, 0.075 in. Wall Thickness

Table Information

Table Length	26-3/4 in.
Table Width	19 in.
Table Thickness	1-1/2 in.
Floor to Table Height	37-1/2 in.

Fence Information

Locks in Front	Yes
Locks in Rear	No
Adjustable for Blade Lead	Yes

Construction

Table Construction	Precision Ground Cast Iron
Rip Fence	Cast Iron Fence with Extruded Aluminum Resaw Fence
Base Construction	Formed Steel
Body Construction	Formed Steel
Upper Wheel	Computer Balanced Cast Iron
Lower Wheel	Computer Balanced Cast Iron
Tire Material	Polyurethane
Wheel Cover	Pre-Formed Steel
Paint	Powder Coated

Other Related Information

Wheel Diameter	18-7/8 in.
Wheel Width	1-1/4 in.
Number of Dust Ports	2
Dust Port Size	4 in.

Other Specifications:

ISO Factory	ISO 9001
Country Of Origin	Taiwan
Warranty	1 Year
Serial Number Location	Label on Top Cover
Assembly Time	1 hour

Features:

Blade Tension Indicator
Computer Balanced Cast Iron Wheels
Height Scale Measurement
Fence with Scale and Magnifying Window
Deluxe Cast Iron Fence with Extruded Aluminum Resaw Fence
Miter Gauge
Quick Change Blade Release/Tensioning
Rack and Pinion Upper Guide Adjustment
Includes 3/4" Blade
Cast Iron Table Trunnions
Ball Bearing Blade Guides
Micro-Adjusting Rack & Pinion Table Tilt
Foot Brake Stop
Blade Tracking Window
Hinged Wheel Covers

SECTION 1: SAFETY

⚠WARNING

For Your Own Safety, Read Instruction Manual Before Operating this Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.

⚠DANGER **Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.**

⚠WARNING **Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.**

⚠CAUTION **Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.**

NOTICE **This symbol is used to alert the user to useful information about proper operation of the machine.**

⚠WARNING

Safety Instructions for Machinery

1. **READ ENTIRE MANUAL BEFORE STARTING.** Operating machine before reading the manual greatly increases the risk of injury.
2. **ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.
3. **ALWAYS WEAR A NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Most types of dust (wood, metal, etc.) can cause severe respiratory illnesses.
4. **ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing loss.
5. **WEAR PROPER APPAREL.** DO NOT wear loose clothing, gloves, neckties, rings, or jewelry that can catch in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
6. **NEVER OPERATE MACHINERY WHEN TIRED OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.

⚠WARNING
Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.

8. **KEEP CHILDREN/VISITORS AWAY.** Keep all children and visitors away from machinery. When machine is not in use, disconnect it from power, lock it out, or disable the switch to make it difficult for unauthorized people to start the machine.

9. **UNATTENDED OPERATION.** Leaving machine unattended while its running greatly increases the risk of an accident or property damage. Turn machine ***OFF*** and allow all moving parts to come to a complete stop before walking away.

10. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.

11. **KEEP WORK AREA CLEAN AND WELL LIGHTED.** Clutter and dark shadows may cause accidents.

12. **USE A GROUNDED POWER SUPPLY RATED FOR THE MACHINE AMPERAGE.** Grounded cords minimize shock hazards. Operating machine on an incorrect size of circuit increases risk of fire.

13. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY**. Make sure switch is in OFF position before reconnecting.

14. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

15. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**

16. **REMOVE CHUCK KEYS OR ADJUSTING TOOLS.** Make a habit of never leaving chuck keys or other adjustment tools in/on the machine—especially near spindles!

17. **DAMAGED MACHINERY.** Check for binding or misaligned parts, broken parts, loose bolts, other conditions that may impair machine operation. Always repair or replace damaged parts before operation.

18. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.

19. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.

20. **DO NOT OVERREACH.** Maintain stability and balance at all times when operating machine.

21. **MANY MACHINES CAN EJECT WORKPIECES TOWARD OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."

22. **STABLE MACHINE.** Machines that move during operations greatly increase the risk of injury and loss of control. Verify machines are stable/secure and mobile bases (if used) are locked before starting.

23. **CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Be aware of the type of dust you are exposed to and always wear a respirator designed to filter that type of dust.

24. **EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Contact our Technical Support Department at (570) 546-9663.

⚠WARNING
Additional Safety Instructions for Bandsaws

1. **BLADE CONDITION.** Do not operate with dull, cracked or badly worn blade. Dull blades require more effort to use and are difficult to control. Inspect blades for cracks and missing teeth before each use.

2. **HAND PLACEMENT.** Placing hands or fingers in the blade path greatly increases the probability of serious injury. Always keep hands or fingers out of the blade path when cutting.

3. **GUARDS.** Do not operate this bandsaw without the blade guard in place.

4. **BLADE REPLACEMENT SAFETY.** Besides disconnecting power when replacing blades, make sure teeth face down toward the table. The force of the cut is always down. Also, make sure the blade is properly tensioned after installing so it will not fly off the wheels.

5. **WORKPIECE HANDLING.** Never hold small workpieces with your fingers during a cut. Always support/feed the workpiece with push stick, table support, vise, or some type of clamping fixture.

6. **CUTTING TECHNIQUES.** Plan your cuts so you always cut out of the wood. DO NOT back the workpiece away from the blade while the saw is running. If you need to back the work out, turn the bandsaw ***OFF*** and wait for the blade to come to a complete stop, and DO NOT twist or put excessive stress on the blade while backing work away.

7. **BLADE SPEED.** Allow blade to reach full speed before cutting.

8. **UNATTENDED MACHINE.** Machines left unattended while running present multiple hazards, including visitor danger, fire, and self-inflicted damage. Always turn your machine ***OFF*** before leaving it.

9. **DO NOT FORCE THE MACHINE.** To minimize your risk of personal injury, work at the speed for which the machine or accessory was designed. Always feed stock evenly and smoothly. DO NOT force or twist blade while cutting, especially when sawing small radii.

10. **CUTTING PROPER MATERIAL.** This machine is not designed to cut metal or any material except wood. Attempting to cut other materials may exceed the limits of the machine and increase the risk of personal injury.

11. **MAINTENANCE/SERVICE.** All inspections, adjustments, and maintenance are to be done with the power ***OFF*** and the plug removed from the outlet. Wait for all moving parts to come to a complete stop.

12. **BLADE CONTROL.** Do not attempt to stop or slow the blade with your hand or a workpiece. Allow the blade to stop on its own, unless your machine is equipped with a brake.

13. **EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Contact our Technical Support Department at (570) 546-9663.

⚠WARNING

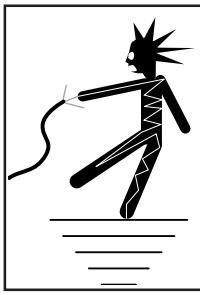
Like all machinery there is potential danger when operating this bandsaw. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this bandsaw with respect and caution to reduce the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

SECTION 2: CIRCUIT REQUIREMENTS

220/440V Operation

⚠WARNING

Serious personal injury could occur if you connect the machine to the power source before you have completed the setup process. DO NOT connect the machine to the power source until instructed after setup.



⚠WARNING

Electrocution or fire could result if this machine is not installed to code. You MUST ensure compliance by checking with a qualified electrician!

NOTICE

The Model G0514X3 is prewired for 220V operation. If you plan to use your machine at 440V, you MUST have a qualified electrican perform the 440V conversion described on Page 15.

Full Load Amp Draw

G0514X @220V 1-Phase.....16 Amp
G0514X2 @220V 1-Phase.....16 Amp
G0514X3 @220V 3-Phase.....9 Amp
G0514X3 @440V 3-Phase .....4.5 Amp

Power Supply Circuit Requirements

The power supply circuit for your machine MUST be grounded and rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

Minimum Circuit Size G0514X (220V) ...20 Amps
Minimum Circuit Size G0514X2 (220)....20 Amps
Minimum Circuit Size G0514X3 (220V) . 15 Amps
Minimum Circuit Size G0514X3 (440V) . 15 Amps

Minimum Cord Requirements

For 220V connection, use a stranded-copper flexible cord that meets the minimum requirements listed below, does not exceed 50 ft., and has an insulation type that starts with "S." A qualified electrician MUST determine the best cord to use in your environment depending on exposure to moisture, heat, and oils.

For 440V connection, an electrician MUST hardwire the machine. The electrician who hardwires the machine will determine the appropriate wire to use inside the conduit.

G0514X/X2 220V 1-Ph ...12AWG/3Wire, 300VAC
G0514X3 220V 3-Ph.....14AWG/4Wire, 300VAC
G0514X3 440V 3-Ph..... Electrician to Hardwire

Power Connection Device

The power connection device depends on the type of installed or planned service. We recommend using one of the devices shown in **Figure 6** or **7**, depending on the voltage being used.

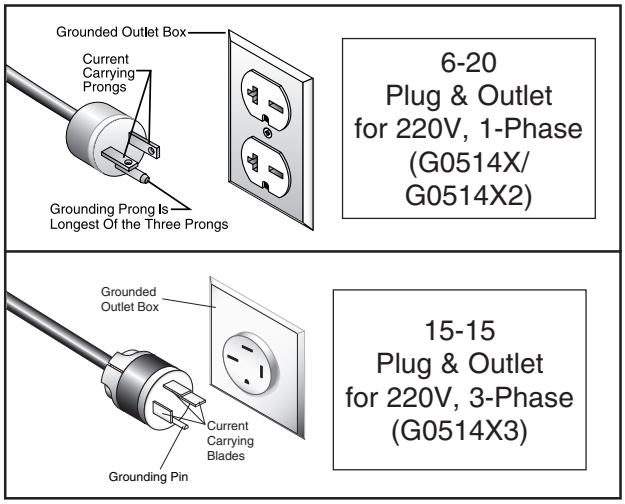
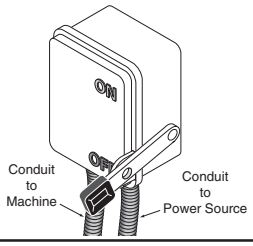

Grounded Outlet Box
Current Carrying Prongs
Grounding Prong Is Longest Of the Three Prongs
6-20 Plug & Outlet for 220V, 1-Phase (G0514X/ G0514X2)
Grounded Outlet Box
Current Carrying Blades
Grounding Pin
15-15 Plug & Outlet for 220V, 3-Phase (G0514X3)

Figure 6. Recommended connection types for G0514X, G0514X2, G0514X3 (220V).



Hardwired Locking Disconnect Switch for 440V, 3-Phase

Figure 7. Recommended connection type for G0514X3 (440V).

Phase Converter Precaution

The power from the manufactured leg may damage electrical components if connected to the wrong incoming power terminal on your machine. Only connect the manufactured leg to the L2 terminal (see **Page 74** for identification). **DO NOT use a static phase converter, as they notoriously damage electrical components.**

G0514X3 440 Conversion

The Model G0514X3 can be converted for 440V operation. This conversion job consists of disconnecting the saw from the power source, changing the connections on the magnetic switch and rewiring the motor for 440V operation.

The Model G0514X3 440V Conversion Kit (Part #P0514X3161A) for this procedure can be purchased by calling Grizzly Customer Service at (800) 523-4777.

All wiring changes must be inspected by a qualified electrician before the saw is connected to the power source. If, at any time during this procedure you need help, call Grizzly Tech Support at (570) 546-9663.

To rewire the Model G0514X3 for 440V operation:

1. DISCONNECT BANDSAW FROM POWER!

2. Remove the magnetic switch cover, then disconnect the 220V magnetic switch (**Figure 8**).

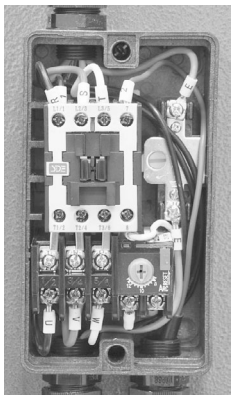


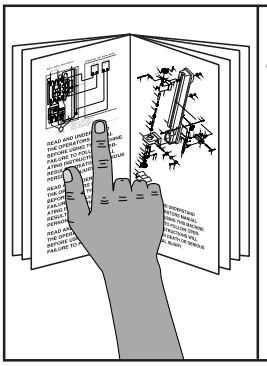
Figure 8. 220V magnetic switch

3. Install the 440V magnetic switch and wire it according to the **G0514X3 Wiring Diagram** on **Page 74.**

4. Remove the motor junction box cover, rewire the motor as shown on the diagram located inside the junction box, then reinstall the cover.

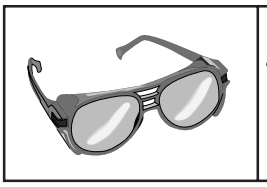
   Note: *The reference motor wiring diagram on* **Page 74** *was current at the time of printing, but always use the wiring diagram provided inside the motor junction box, as it will reflect any changes to the motor shipped with your machine.*

SECTION 3: SETUP



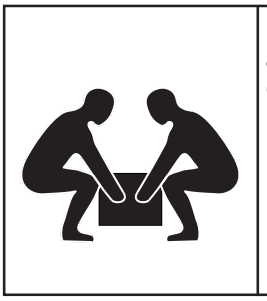
⚠WARNING

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



⚠WARNING

Wear safety glasses during the entire setup process!



⚠WARNING

This machine and its components are very heavy. Get lifting help or use power lifting equipment such as a forklift to move heavy items.

Needed for Setup

The following are needed to complete the setup process, but are not included with your machine.

Description	Qty
• Safety Glasses	1
• Cleaner/Degreaser (**Page 20**)	As Needed
• Disposable Shop Rags	As Needed
• Forklift/Strap w/Hook (1,000 lb. capacity)	1
• Additional People	1
• Straightedge	1
• Dust Collection System	1
• Dust Hose 4"	1
• Hose Clamps 4"	2

Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover the machine is damaged, *please immediately call Customer Service at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, inventory the contents.

Inventory (G0514X)

The following is a description of the main components shipped with your G0514X. Lay the components out to inventory them.

Note: *If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for shipping purposes.*

Crate Contents (Figure 9 & 10):	**Qty**
A. Bandsaw (not shown)	1
B. Table	1
C. Miter Gauge	1
D. Back Square Tube	1
E. Resaw Fence	1
F. Front Rail	1
G. Fence Assembly	1

Hardware and Tools (not shown):	**Qty**
• Eye Bolt M10-1.5 (may be installed)	1
• Flat Washers 8mm (Table, Fence)	5
• Lock Washers 8mm (Table)	4
• Hex Bolts M8-1.25 x 16 (Table)	4
• Hex Bolt M8-1.25 x 90 (Pos. Stop)	1
• Hex Nuts M8-1.25 (Pos. Stop, Fence)	2
• Table Pin	1
• Table Insert	1
• Cap Screws M6-1 x 16 (Fence)	2
• Hex Bolts M6-1 x 20 (Fence)	2
• Fence Handle M8-1.25 x 22 (Fence)	1
• Lock Washers 6mm (Fence)	2
• Flat Washers 6mm (Fence)	2
• Rail Pad M6 x 18 (Fence)	1
• Hex Nut M6-1 (Fence)	1
• Lock Handle M8-1.25 x 44 (Fence)	1
• Moving Plate (Fence)	1
• Hex Wrench 5mm & 8mm	1 Ea
• Open End Wrench 10 x 13mm	1

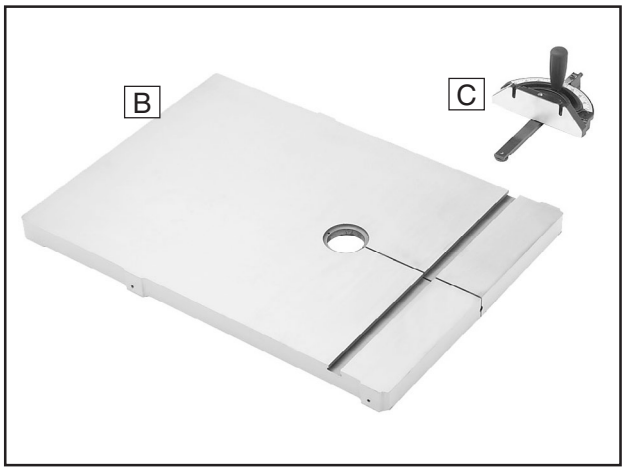


Figure 9. Bandsaw components.

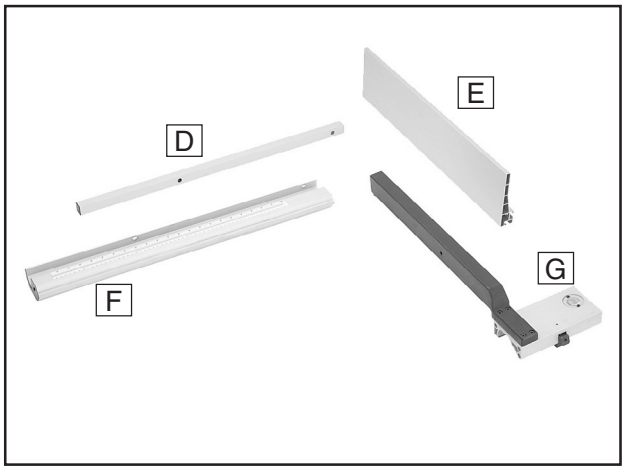
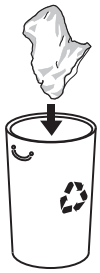


Figure 10. Fence components.

If any nonproprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.



⚠WARNING

SUFFOCATION HAZARD!

Immediately discard all plastic bags and packing materials to eliminate choking/suffocation hazards for children and animals.

Inventory (G0514X2/ G0514X3)

The following is a description of the main components shipped with your Model G0514X2/G0514X3. Lay the components out to inventory them.

Note: *If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for shipping purposes.*

Crate Contents (Figure 11–13):	**Qty**
A. Bandsaw (not shown)	1
B. Table	1
C. Miter Gauge	1
D. Back Square Tube	1
E. Resaw Fence	1
F. Front Rail	1
G. Fence Assembly	1
H. Foot Brake	1
I. Sliding Plate	1
J. Table Tilt Handwheel	1
K. Guide Post Handwheel	1

Hardware and Tools (not shown):	**Qty**
• Eye Bolt M10-1.5 (may be installed)	1
• Flat Washers 8mm (Table, Sliding Plate, Fence)	7
• Lock Washers 8mm (Table)	4
• Hex Bolts M8-1.25 x 25 (Table)	4
• Hex Bolt M8-1.25 x 55 (Sliding Plate)	1
• Lock Nut M8-1.25 (Sliding Plate)	1
• Cap Screw M6-1 x 12 (Sliding Plate)	2
• Hex Bolt M8-1.25 x 90 (Pos. Stop)	1
• Hex Nuts M8-1.25 (Pos. Stop, Fence)	2
• Table Pin	1
• Table Insert	1
• Cap Screws M6-1 x 16 (Fence)	2
• Hex Bolts M6-1 x 20 (Fence)	2
• Fence Handle M8-1.25 x 22 (Fence)	1
• Rail Pad M6 x 18 (Fence)	1
• Hex Nut M6-1 (Fence)	1
• Lock Handle M8-1.25 x 44 (Fence)	1
• Moving Plate (Fence)	1
• Lock Washers 6mm (Fence, Sliding Plate)	4
• Flat Washers 6mm (Fence, Sliding Plate)	4
• Hex Wrench 5mm & 8mm	1 Ea
• Open End Wrench 10 x 13mm	1

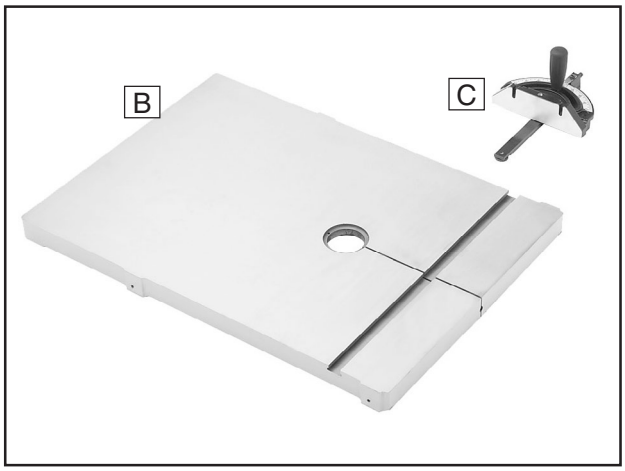


Figure 11. Bandsaw components.

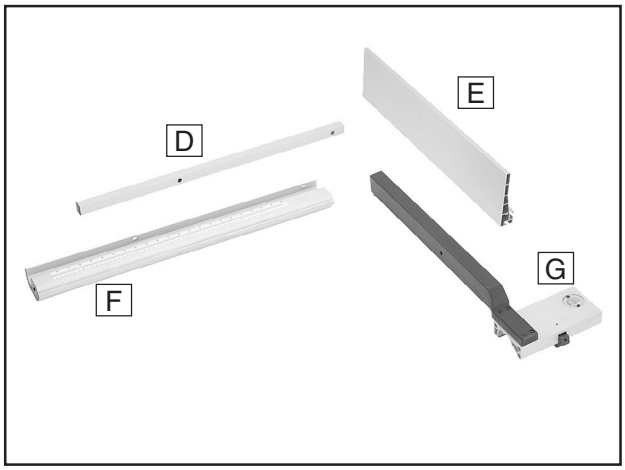


Figure 12. Fence components.

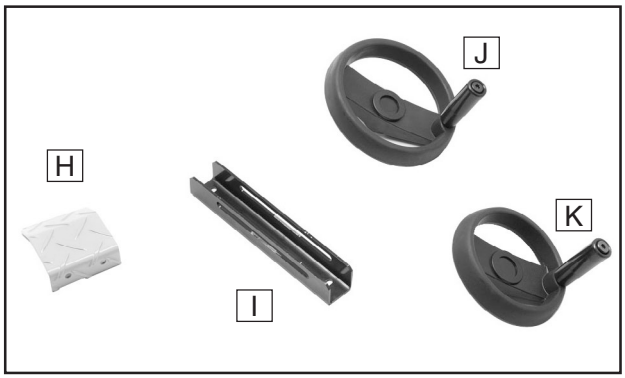
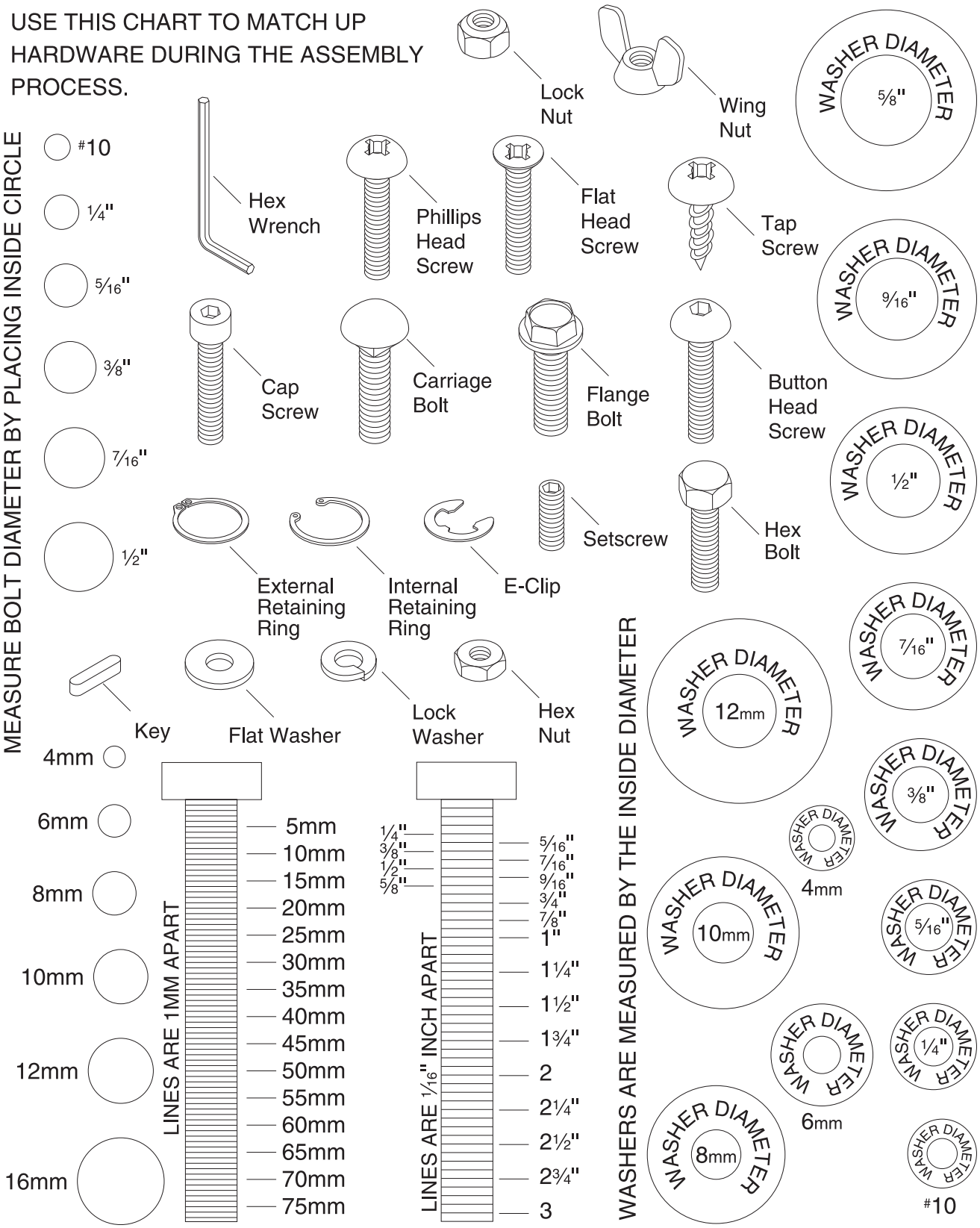


Figure 13. Foot brake and table tilt components.

If any nonproprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

Hardware Recognition Chart

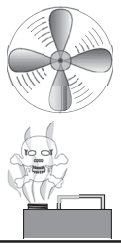


Clean Up

The unpainted surfaces are coated with a waxy oil to prevent corrosion during shipment. Remove this protective coating with a solvent cleaner or degreaser, such as shown in **Figure 14**. For thorough cleaning, some parts must be removed. **For optimum performance, clean all moving parts or sliding contact surfaces.** Avoid chlorine-based solvents, such as acetone or brake parts cleaner that may damage painted surfaces. Always follow the manufacturer's instructions when using any type of cleaning product.

⚠WARNING

Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. DO NOT use these products to clean the machinery.



⚠CAUTION

Many cleaning solvents are toxic if inhaled. Minimize your risk by only using these products in a well ventilated area.

G2544—Solvent Cleaner & Degreaser
H9692—Orange Power Degreaser
Great products for removing shipping grease.

Figure 14. Cleaner/degreasers available from Grizzly.

Site Considerations

Floor Load

Refer to the **Machine Data Sheet** for the weight and footprint specifications of your machine. Some residential floors may require additional reinforcement to support both the machine and operator.

Placement Location

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your new machine. See **Figure 15** for the minimum working clearances.

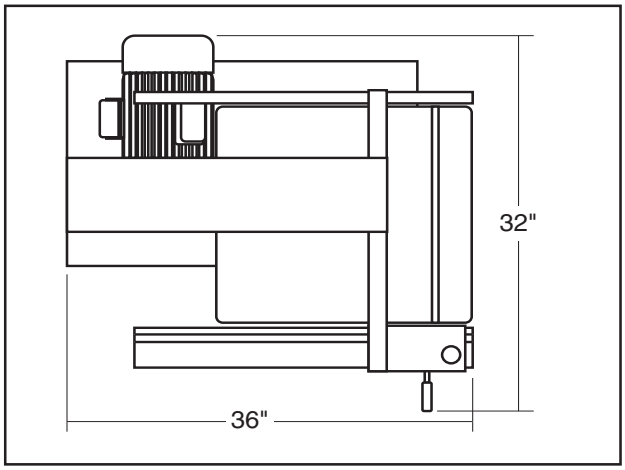
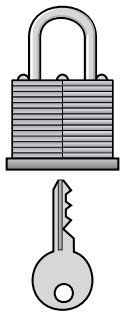


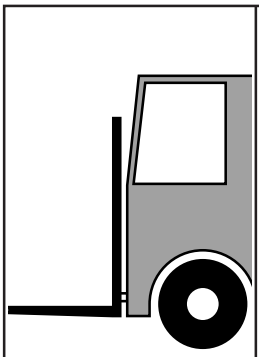
Figure 15. G0514X/G0514X2/G0514X3 minimum working clearances.



⚠CAUTION

Children and visitors may be seriously injured if unsupervised around this machine. Lock entrances to the shop or disable start switch or power connection to prevent unsupervised use.

Moving & Placing Base Unit



⚠WARNING

The Model G0514X/ G0514X2/G0514X3 is a heavy machine. Serious personal injury may occur if safe moving methods are not used. Get assistance and use power equipment to move the shipping crate and remove the machine from the crate.

Special care should be taken when moving this bandsaw. Only use the following methods to lift or move this bandsaw.

To move and place the bandsaw using the eye bolt:

1. Unbolt the bandsaw from the pallet.

2. Install the eye bolt shown in **Figure 16** if it is not already installed (make sure it is threaded all the way in), then place the lifting hook through the eye bolt and lift slowly with a forklift.

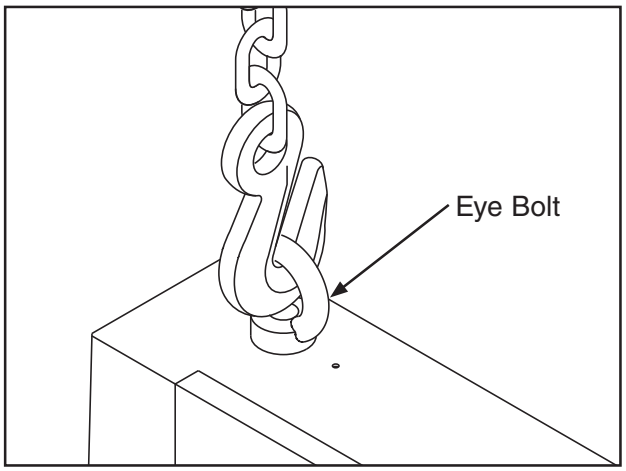


Figure 16. Lifting the bandsaw.

3. Remove the pallet and slowly set the bandsaw into position.

To move and place the bandsaw using wood shims:

1. Carefully place the forklift forks under the head and install a 1x4 shim between the head and the left fork and a 2x4 shim between the head and right fork so the bandsaw is level, as shown in **Figure 17**.

2. Unbolt the bandsaw from the pallet.

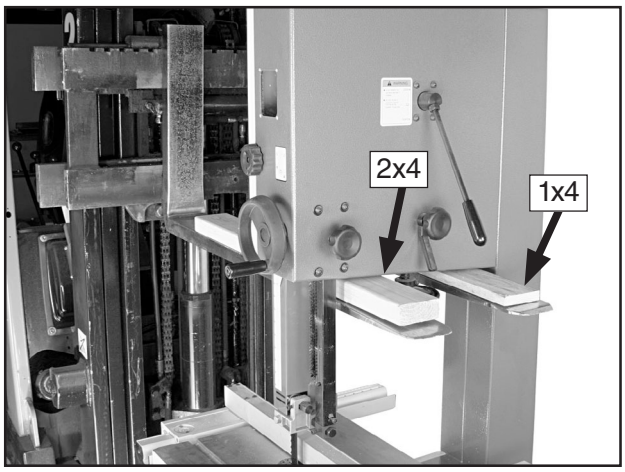


Figure 17. Example of lifting bandsaw with forklift using wood shims.

3. Lift the bandsaw off of the pallet, remove the pallet, and slowly set the bandsaw into position.

Note: *If you are concerned about your forklift forks hitting the tension handwheel, remove the handwheel before positioning the forks, then reinstall it after placing.*

Mounting

We recommend mounting your new machine to the floor. Because floor materials may vary, floor mounting hardware is not included. You may also mount your machine to a mobile base that has wheel locking or wheel retracting capabilities that keeps the mobile base from rolling when not in use.

Bolting to Concrete Floors

Lag shield anchors with lag bolts (**Figure 18**) and anchor studs (**Figure 19**) are two popular methods for anchoring an object to a concrete floor. We suggest you research the many options and methods for mounting your machine and choose the best that fits your specific application.

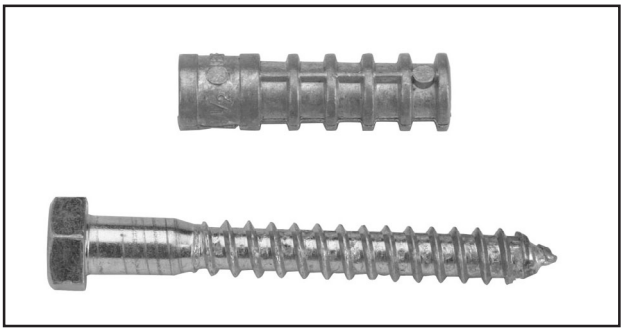


Figure 18. Typical lag shield anchor and bolt.

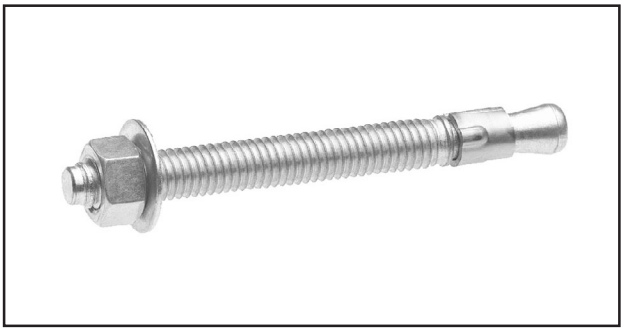


Figure 19. Typical anchor stud.

NOTICE

Anchor studs are stronger and more permanent alternatives to lag shield anchors; however, they will stick out of the floor, which may cause a tripping hazard if you decide to move your machine.

Table

The table is heavy and requires two people to lift it onto the trunnions. Remove the saw blade to make table installation easier.

To install the table:

1. Loosen blade tension by rotating the quick release tension lever clockwise as shown in **Figure 20**.

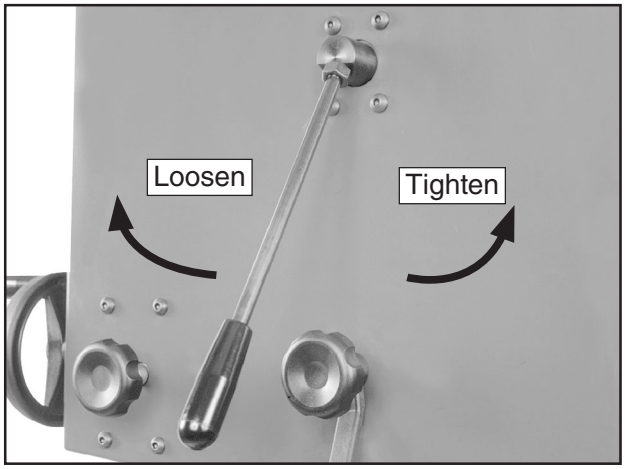


Figure 20. Quick release tension lever.

2. Adjust the upper and lower blade guides away from the blade. Refer to **Adjusting Blade Guide Bearings** on **Page 32** for more details.

⚠CAUTION

All saw blades are dangerous and may cause personal injury. To reduce the risk of being injured, wear leather gloves when handling saw blades.

3. Open the upper and lower wheel covers, and slide the blade off of both wheels.

⚠CAUTION

Personal injury may occur if the table is lifted without assistance. Get help when installing the table.

4. With the help of another person, lift the table onto the trunnions.

5. **Model G0514X:** Secure the table to the trunnions as shown in **Figure 21** with the (4) M8-1.25 x 16 hex bolts, 8mm lock washers, and 8mm flat washers.

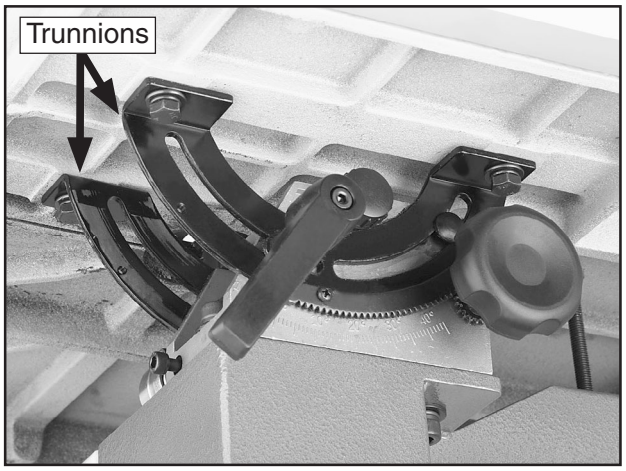


Figure 21. Mounting the table.

Model G0514X2/G0514X3: Secure the table to the trunnions with the (4) M8-1.25 x 25 hex bolts, 8mm lock washers, and 8mm flat washers.

6. With the blade teeth pointing downward, and toward the front of the machine, slide the blade through the table slot.

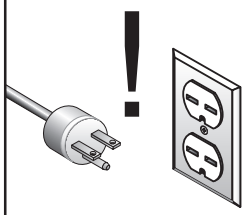
—If the table insert is preinstalled, remove it before changing the blade.

7. Slide the blade through the upper and lower blade guides, and mount it over the upper and lower wheels.

8. Tighten the quick release tension lever, then install the table insert and table pin.

9. Keep the upper and lower blade guides adjusted away from the blade until the blade tracking and tension have been adjusted.

Blade Tracking



⚠WARNING

Personal injury or death can occur if the machine starts while your hand is touching the bandsaw wheel during tracking adjustments. Disconnect power from the bandsaw before performing blade tracking adjustments.

The blade tracking is primarily affected by the tilt of the upper wheel, also known as "Center Tracking"; and the alignment of both wheels, also known as "Coplanar Tracking." (For Coplanar Tracking, see the **Wheel Alignment** instructions on **Page 65**.)

The wheels on this bandsaw were aligned at the factory, so Center Tracking is the only adjustment that needs to be performed when the saw is new.

To center track the blade:

1. DISCONNECT BANDSAW FROM POWER!

2. Make sure the upper and lower blade guides are adjusted away from the blade.

3. Engage the quick tension lever and turn the blade tension handwheel until the tension scale (**Figure 22**) reads between 4 and 6.

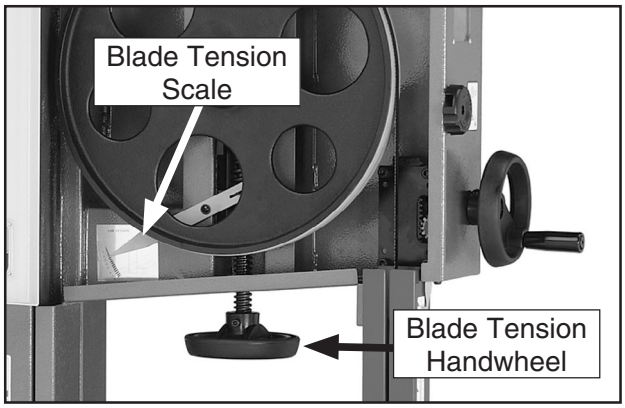


Figure 22. Blade tensioning controls.

4. Spin the upper wheel by hand at least three times and watch how the blade rides on the crown of the wheel. Refer to **Figure 23** for an illustration of this concept.

   —**If the blade rides in the center of the upper wheel and is centered on the peak of the wheel crown**, then the bandsaw is already tracked properly and no further adjustments are needed at this time.

   —**If the blade does not ride in the center of the upper wheel and is not centered on the peak of the wheel crown,** then continue with the following steps.

⚠CAUTION

The cast iron spokes may have sharp edges and the blade teeth may extend beyond the edge of the wheel, creating a laceration hazard. Be careful when turning the wheels by hand.

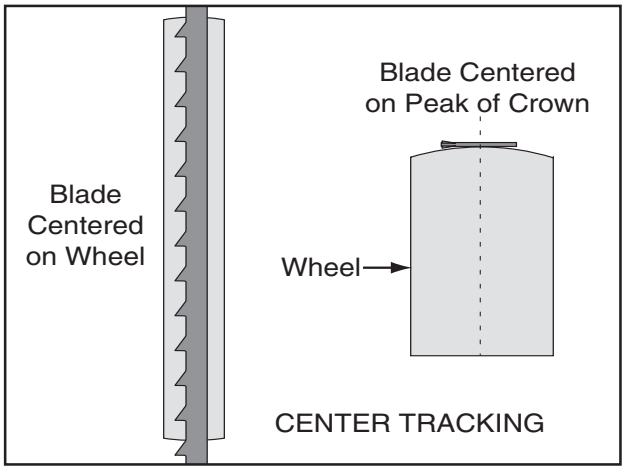


Figure 23. Center tracking profiles.

5. Loosen the lock lever (**Figure 24**) so that the blade tracking knob can rotate.

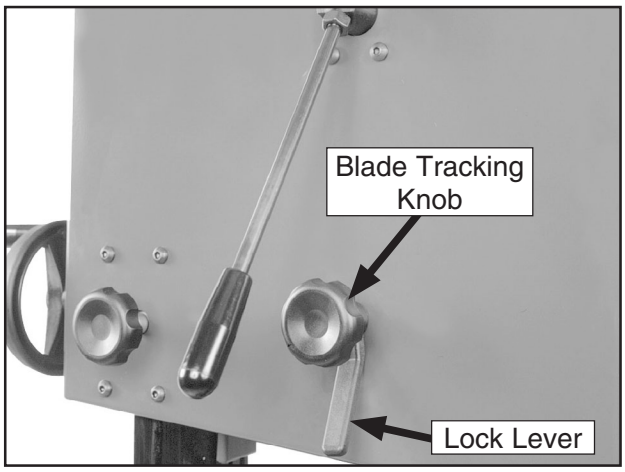


Figure 24. Blade tracking controls.

6. Spin the upper wheel with one hand and rotate the tracking control knob with the other hand to make sure the blade rides in the center of the bandsaw wheel tire.

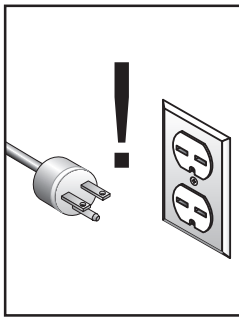
7. Tighten the tracking control lock knob and close the upper wheel cover.

For the best performance from your saw, regularly maintain proper tracking of the blade.

NOTICE

Changes in the blade tension may change the blade tracking.

Positive Stop



⚠WARNING

Personal injury or death can occur if the bandsaw starts during table adjustments. Disconnect power from the bandsaw before performing table adjustments.

The positive stop allows the table to be quickly and accurately returned to the horizontal (0˚) position after being adjusted to a different angle.

To install the positive stop:

1. Unlock the table tilt lock lever, tilt the table to access the positive stop bolt installation location, then lock the lever.

2. Thread the M8-1.25 hex nut halfway onto the M8-1.25 x 90 hex bolt (this is the positive stop bolt).

3. Thread the positive stop bolt into the threaded hole on bandsaw body as shown in **Figure 25**.

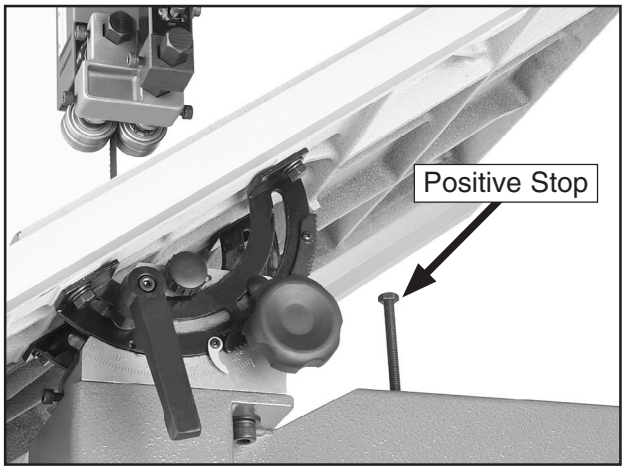


Figure 25. Installed positive stop bolt.

4. Lower the table onto the positive stop bolt.

To position the positive stop:

1. DISCONNECT BANDSAW FROM POWER!

2. Adjust the blade tension until the mark on the blade tension scale is between 4 and 6.

3. Loosen the hex nut that locks the positive stop bolt in place.

4. Raise the guide post and place a machinist's square on the table next to the side of the blade as illustrated in **Figure 26**. Adjust the table square with the blade, then secure with the table tilt lock lever (**Figure 59**) on **Page 41**.

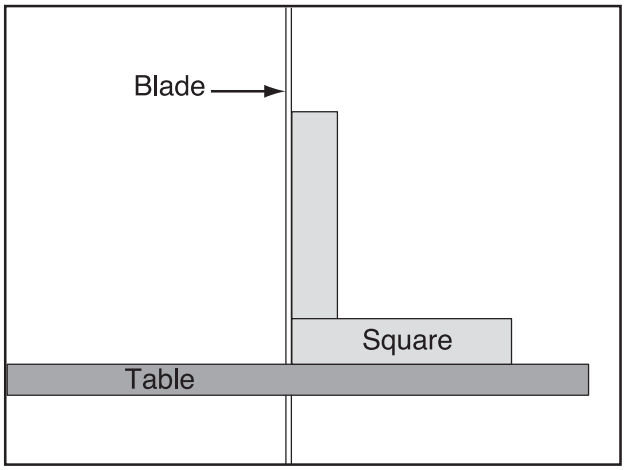


Figure 26. Squaring table to blade.

5. Adjust the positive stop bolt against the table and secure it by tightening the hex nut against the trunnion bracket.

6. Check the adjustment for accuracy once you have tightened the hex nut.

7. Loosen the screw on the pointer, but do not remove it.

8. Align the tip of the pointer with the 0˚ mark on the table tilt scale.

9. Tighten the screw on the pointer so that the pointer is locked in place.

Table Tilt Assembly (G0514X2/G0514X3)

To attach the table tilt assembly:

1. Tilt the table up and secure the table lock lever.

2. Remove the hex bolt, hex nut and flat washers installed on the geared table tilt tube (**Figure 27**).

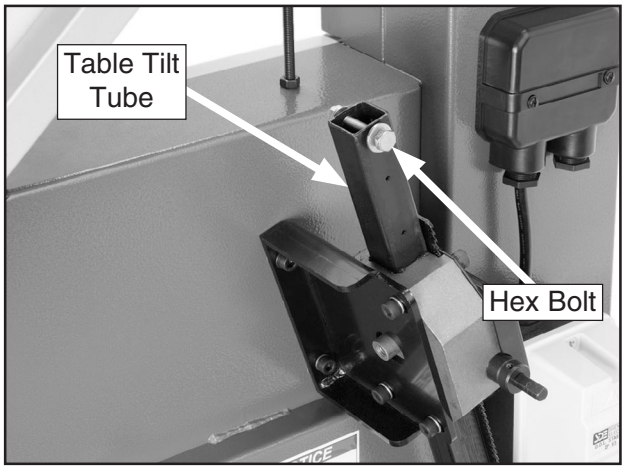


Figure 27. Table tilt assembly.

3. Secure the sliding plate to the table tilt tube with the fasteners removed in **Step 2**, making sure the hole closest to the edge of the plate is installed on the left side of the table—facing the rear of the bandsaw.

4. Lower the table onto the positive stop bolt.

5. Secure the table tilt handwheel onto the flat part of the handwheel shaft with the included cap screw (**Figure 28**).

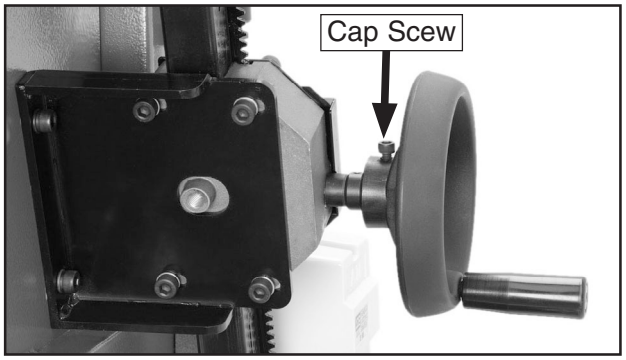


Figure 28. Table tilt handwheel installed.

6. Raise the sliding plate up and secure it to the bottom of the table with the hex bolts and flat washers, as shown in **Figure 29**.

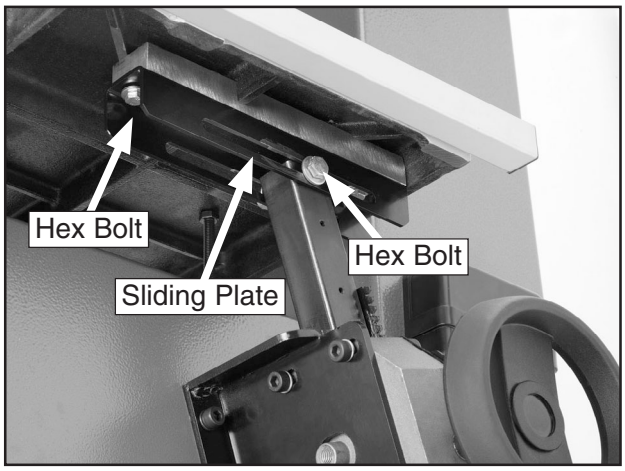


Figure 29. Sliding plate secured to table.

Handwheel (G0514X2/G0514X3)

Secure the guide post handwheel onto the flat part of the handwheel shaft with the included set screw, as shown in **Figure 30**.

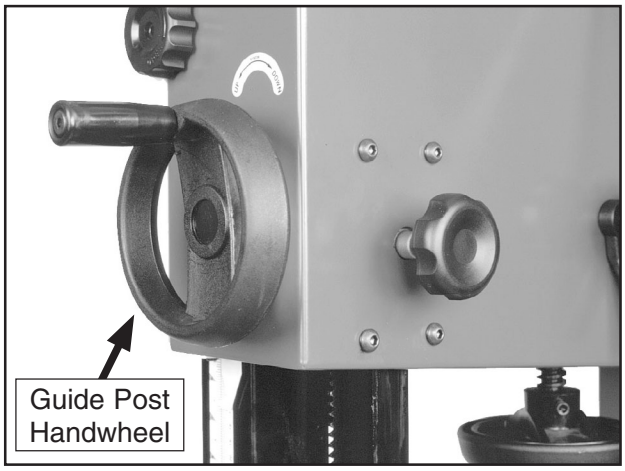


Figure 30. Guide post handwheel installed.

Dust Collection

⚠CAUTION

DO NOT operate the Model G0514X/G0514X/G0514X3 without an adequate dust collection system. This saw creates substantial amounts of wood dust while operating. Failure to use a dust collection system can result in short and long-term respiratory illness.

Recommended CFM at Dust Port: 400 CFM

Do not confuse this CFM recommendation with the rating of the dust collector. To determine the CFM at the dust port, you must consider these variables: (1) CFM rating of the dust collector, (2) hose type and length between the dust collector and the machine, (3) number of branches or wyes, and (4) amount of other open lines throughout the system. Explaining how to calculate these variables is beyond the scope of this manual. Consult an expert or purchase a good dust collection "how-to" book.

To connect a dust collection hose:

1. Fit the 4" dust hose over each dust port, as shown in **Figure 31**, and secure in place with a hose clamp.

2. Tug the hose to make sure it does not come off. **Note:** *A tight fit is necessary for proper performance.*

Figure 31. Dust hose attached to one of the two dust ports.

Installing Fence

To install the fence:

1. Attach the back square tube to the table with the (2) M6-1 x 16 cap screws as shown in **Figure 32**.

2. Attach the front rail with the (2) M6-1 x 20 hex bolts, 6mm lock washers, and 6mm flat washers as shown in **Figure 32**.

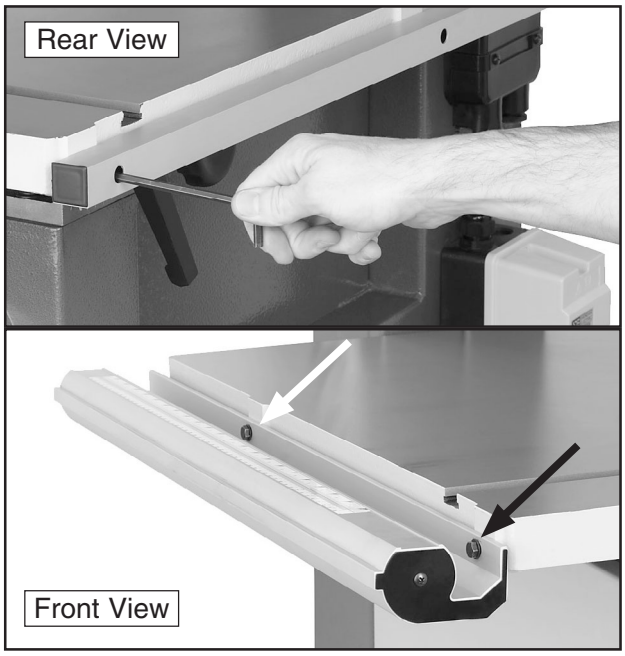


Figure 32. Rail installation.

3. Install an M8-1.25 hex nut on the fence handle, then thread the handle into the fence assembly (**Figure 33**). Tighten the hex nut against the fence pivot block to secure the handle.

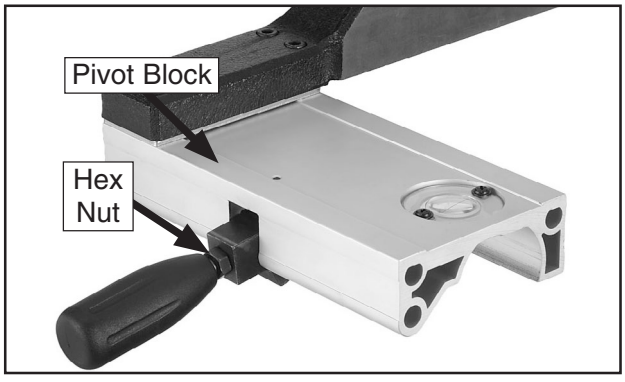


Figure 33. Handle installed on fence assembly.

4. Thread the M6-1 hex nut onto the rail pad, then thread the rail pad into the fence (see **Figure 34**).

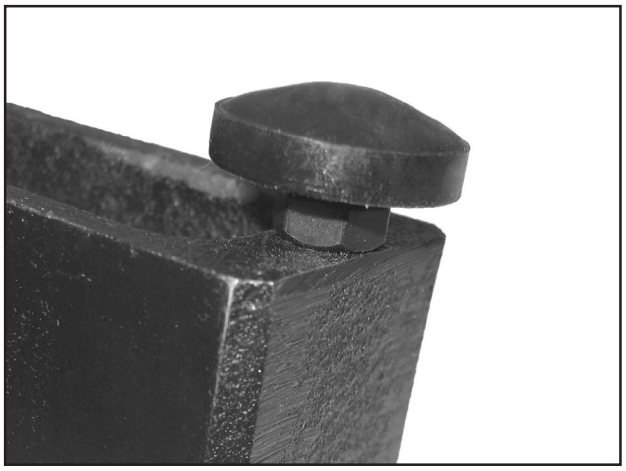


Figure 34. Installed rail pad.

5. Place the 8mm flat washer on the lock handle, slide it through the hole in the fence, then thread the moving plate onto the end of the lock handle threads.

6. Slide the resaw fence over the moving plate, as shown in **Figure 35**, so the moving plate fits inside the channel of the resaw fence.

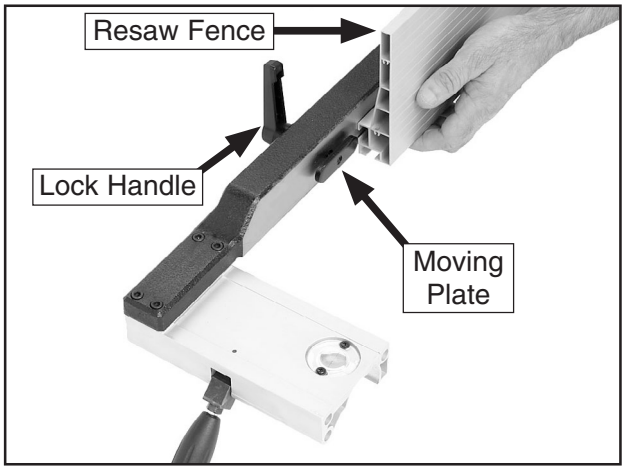


Figure 35. Attaching resaw fence to standard fence.

7. Tighten the lock handle.

8. Pull the fence handle up and place the fence assembly on the fixed rail as shown in **Figure 36**.

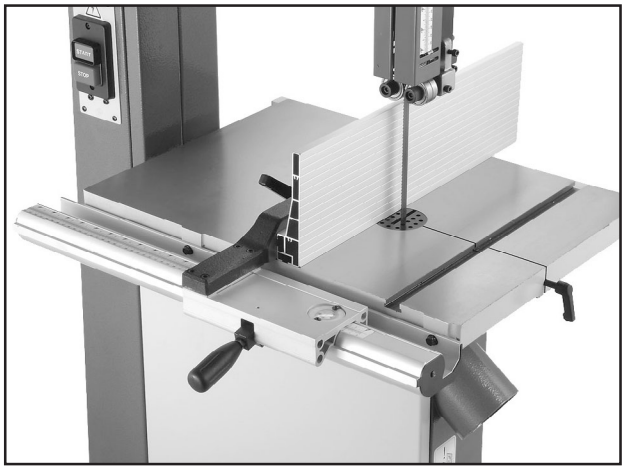


Figure 36. Correctly installed fence.

9. Push the fence handle down to lock the fence assembly in place.

10. Adjust the rail pad until there is an even gap between the bottom of the fence and the table, then tighten the hex nut against the fence.

Installing Foot Brake (G0514X2/G0514X3)

Secure the foot pedal to the brake lever using the cap screws and lock washers, as shown in **Figure 37**.

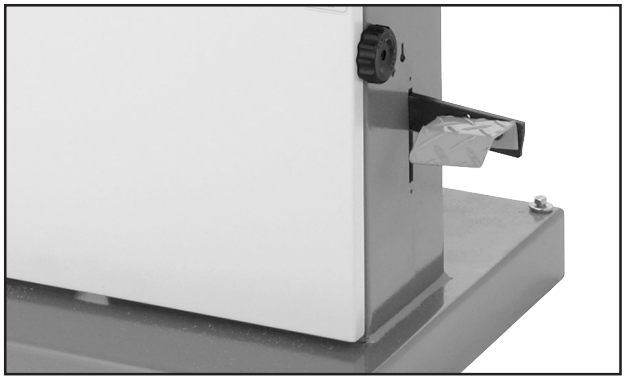


Figure 37. G0514X3 Foot brake installed.

Test Run

Once the assembly is complete, test run your machine to make sure it runs properly and is ready for regular operation.

The test run consists of verifying the following: 1) The motor powers up and runs correctly, 2) the safety disabling mechanism on the switch works correctly, and 3) the stop button safety feature works correctly.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then review **Troubleshooting** on **Page 55**.

If you still cannot remedy a problem, contact our Tech Support at (570) 546-9663 for assistance.

To test run the machine:

1. Make sure you have read the safety instructions at the beginning of the manual and that the machine is set up properly.

2. Make sure all tools and objects used during setup are cleared away from the machine.

3. Connect the machine to the power source.

4. Verify that the machine is operating correctly by turning the switch disabling key (**Figure 38**) to "1" and turning the machine ***ON***.

   —When operating correctly, the machine runs smoothly with little or no vibration or rubbing noises.

   —Investigate and correct strange or unusual noises or vibrations before operating the machine further. Always disconnect the machine from power when investigating or correcting potential problems.

Figure 38. G0514X switch disabling key and ON/OFF switch.

5. Press the OFF button to stop the machine.

6. WITHOUT resetting the OFF button, press the ON button. The machine should not start.

   —If the machine does not start, the OFF button safety feature is working correctly.

   —If the machine does start (with the stop button pushed in), immediately disconnect power to the machine. The OFF button safety feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

7. Push the OFF button in, then twist it clockwise so it pops out. When the OFF button pops out, the switch is reset and ready for operation (see **Figure 39**).

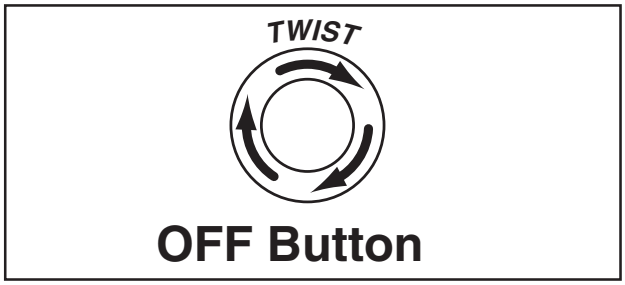


Figure 39. Resetting the switch.

8. Turn the bandsaw ***ON*** and allow it to reach full speed, then press the foot brake (**Figure 51** on **Page 37**) completely.

    —If the bandsaw blade stops, the foot brake is working correctly; continue to the next step.

    —If the bandsaw blade does not stop moving, the foot brake feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

9. Close the upper and lower wheel covers.

10. Turn the switch disabling key to "0", as shown in **Figure 38** on **Page 29**.

11. Try to turn the machine ***ON***.

    —If the bandsaw does not start, the switch disabling feature is working as designed. The Test Run is complete.

    —If the bandsaw starts, immediately disconnect power. The switch disabling feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

12. **Model G0514X3 Only:** Verify that the power is not connected out of phase by starting/stopping the machine and determining if the motor turns in the correct direction, using the criteria below:

    —If the blade moves down and toward the table (as standing in front of the machine), it is turning in the correct direction.

    —If the blade turns up and away from the table, it is turning in the wrong direction. Stop the machine, disconnect the power source, then swap any two of the three power wires that connect to the machine.

Tensioning Blade

A properly tensioned blade is essential for making accurate cuts and is required before making many bandsaw adjustments. (Everytime you replace the blade, you should perform this procedure because all blades tension differently.)

To tension the bandsaw blade:

1. Complete the **Test Run** procedure and make sure the blade is tracking properly.

2. Raise the upper blade guide assembly as high as it will go, and adjust the upper and lower guide blocks as far away from the blade as possible. **Note:** *This procedure will NOT work if the guide blocks have any contact with the blade.*

3. Engage the quick tension lever to the tightened position and turn the blade tension handwheel until the tension scale reads between 4 and 6.

4. Turn the bandsaw ***ON***.

5. Slowly release the tension one quarter of a turn at a time. When you see the bandsaw blade start to flutter, stop decreasing the tension.

6. Now, slowly increase the tension until the blade stops fluttering, then tighten the tension another quarter turn.

7. Look at what the tension gauge reads and use that as a guide for tensioning that blade in the future. **Note:** *Always detension the blade after use to increase blade life and reduce strain on the bandsaw components.*

8. Re-adjust the blade tracking as instructed on **Page 23**.

Adjusting Support Bearings

NOTICE

Whenever changing a blade or adjusting tension and tracking, the upper and lower blade support bearings and blade guide bearings must be properly adjusted before performing cutting operations.

The support bearings are positioned behind the blade for support during cutting operations. Proper adjustment of the support bearings is an important part of making accurate cuts and also keeps the blade teeth from coming in contact with the guide bearings while cutting.

To adjust the upper support bearings:

1. DISCONNECT BANDSAW FROM POWER!

2. Make sure the blade is tracking properly and that it is correctly tensioned.

3. Familiarize yourself with the upper support bearing controls shown in **Figure 40**.

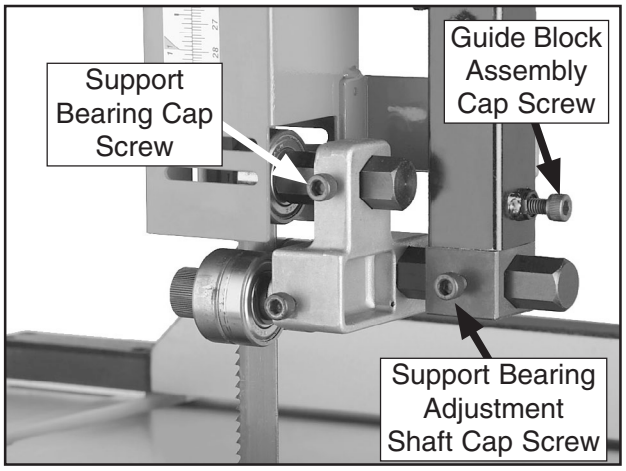


Figure 40. Upper support bearing controls.

4. Loosen the guide block assembly cap screw and rotate the blade guide assembly side-to-side, until the blade is perpendicular with the face of the support bearing as illustrated in **Figure 41**.

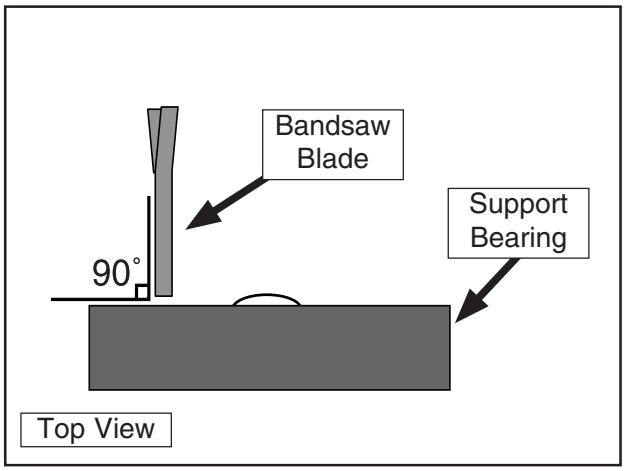


Figure 41. Blade should be perpendicular (90˚) to the face of the support bearing.

5. Tighten the assembly cap screw.

6. Loosen the cap screw on the support bearing adjustment shaft.

7. Place a 0.016" feeler gauge between the support bearing and the blade, and position the bearing 0.016" away from the back of the blade as illustrated in **Figure 42**.

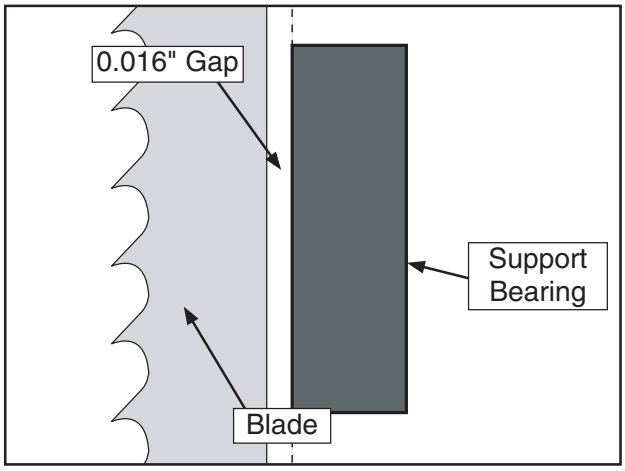


Figure 42. Blade should be aligned approximately 0.016" away from the bearing edge.

Note: *For a quick gauge, fold a dollar bill in half twice (four thicknesses of a dollar bill is approximately 0.016") and place it between the support bearing and the blade as shown in* ***Figure 43****.*

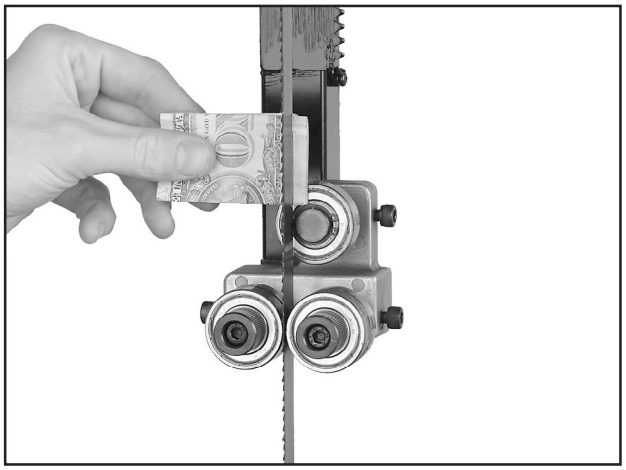


Figure 43. Dollar bill folded twice to make an approximate 0.016" gauge.

8. Tighten the cap screw to keep the support bearing locked in place.

To adjust the lower support bearings:

1. DISCONNECT BANDSAW FROM POWER!

2. Make sure that the blade is tracking properly and is correctly tensioned.

3. Familiarize yourself with the lower support bearing controls shown in **Figure 44**.

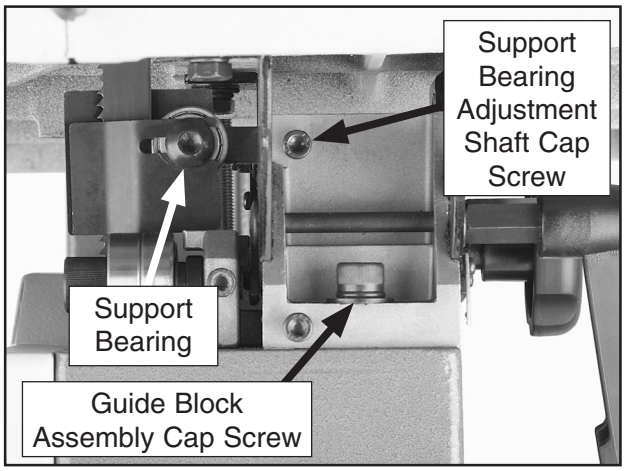


Figure 44. Lower support bearing controls.

4. Check to make sure the guide block assembly is perpendicular with the face of the support bearing as illustrated in **Figure 41**.

—If the guide block assembly is perpendicular to the face of the support bearing, continue on to the next step.

—If the guide block assembly is not perpendicular to the support bearing, loosen the guide block assembly cap screws and rotate the blade guide assembly side-to-side until the blade is perpendicular with the face of the support bearing, then re-tighten the cap screws. **Note:** *The table must be re-aligned with the blade after the lower guide block assembly is adjusted. Refer to* ***Page 34****.*

5. Loosen the cap screw on the support bearing adjustment shaft.

6. Place a 0.016" feeler gauge between the support bearing and the blade, and position the bearing 0.016" away from the back of the blade as illustrated in **Figure 42** or use a dollar bill as shown in **Figure 43**.

7. Tighten the cap screw to keep the support bearing locked in place.

Adjusting Blade Guide Bearings

The blade guides provide side-to-side support to help keep the blade straight while cutting. The blade guides are designed to be adjusted in two ways—forward/backward and side-to-side.

To adjust the upper and lower blade guides:

1. Make sure the blade is tracking properly and that it is correctly tensioned.

2. DISCONNECT BANDSAW FROM POWER!

3. Familiarize yourself with the blade guide controls shown in **Figure 45**.

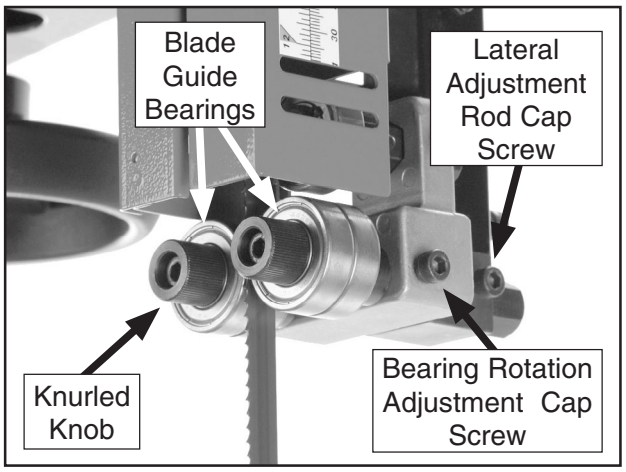


Figure 45. Blade guide controls.

4. Loosen the cap screw on the lateral adjustment rod and adjust the blade guides until the edges of the bearings are 1/16" behind the blade gullets as illustrated in **Figure 46**.

   Note: *The 1/16" spacing is ideal, although with larger blades it may not be possible. In such cases, adjust the guide bearings as far forward as possible to the blade gullets, and still maintain the proper support bearing spacing adjustment.*

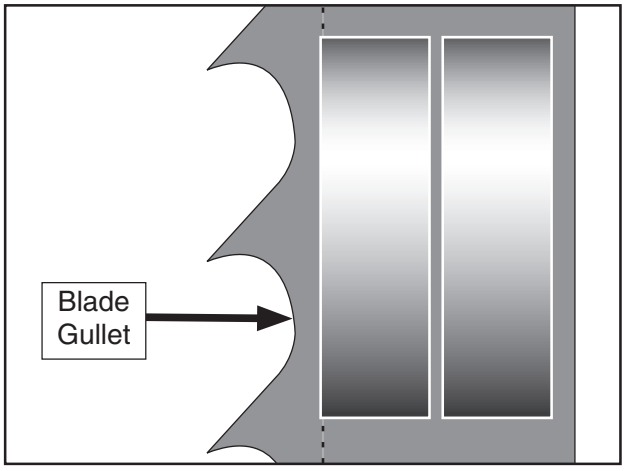


Figure 46. Lateral adjustment of blade guides.

NOTICE

Make sure that the blade teeth will not contact the guide bearings when the blade is against the rear support bearing during the cut or the blade teeth will be ruined.

5. Tighten the cap screw on the lateral adjustment rod.

6. Loosen the bearing rotation adjustment cap screws.

7. Rotate the knurled knob to position the bearings 0.004" away from the blade. **Note:** *0.004" is approximately the thickness of a dollar bill.*

8. Tighten the cap screw to lock the blade guide bearings in position.

9. Repeat this procedure for the lower guides.

NOTICE

Whenever changing a blade or adjusting tension and tracking, the upper and lower blade support bearings and guide bearings must be properly adjusted before cutting operations.

Aligning Table

To ensure cutting accuracy when the table is first installed, the table should be aligned so that the miter slot is parallel to the bandsaw blade. This procedure works best with a ¾" blade installed.

To align the table so the miter slot is parallel to the bandsaw blade:

1. Make sure that the blade is tracking properly and that it is correctly tensioned.

2. DISCONNECT BANDSAW FROM POWER!

3. Loosen the trunnion bolts that secure the trunnions to the table.

4. Place an accurate straightedge along the blade. The straightedge should lightly touch both the front and back of the blade. **Note:** *Make sure the straightedge does not go across a tooth.*

5. Use a fine ruler to gauge the distance between the straightedge and the miter slot. The distance you measure should be the same at both the front and the back of the table (see **Figure 47**).

6. Adjust the table as needed for proper alignment.

7. Tighten the trunnion bolts.

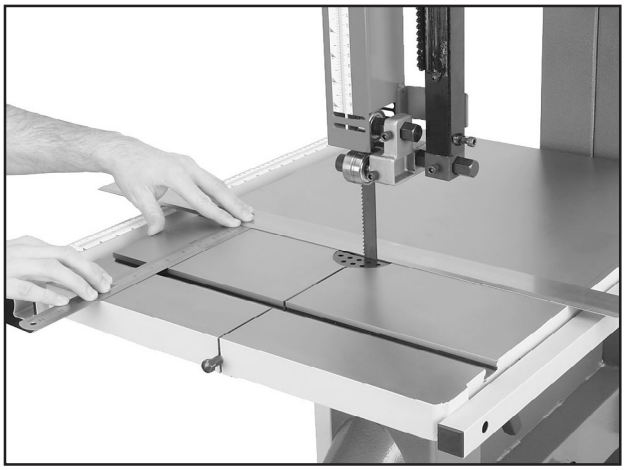


Figure 47. Measuring for miter slot to be parallel with blade.

Aligning Fence

To ensure cutting accuracy when the fence is first installed, the fence should be aligned with the miter slot.

To align the fence parallel with the miter slot:

1. If the fence is mounted on the left-hand side of the blade, remove it and remount it next to the miter slot.

2. Loosen the four cap screws located on the top face of the fence (**Figure 48**).

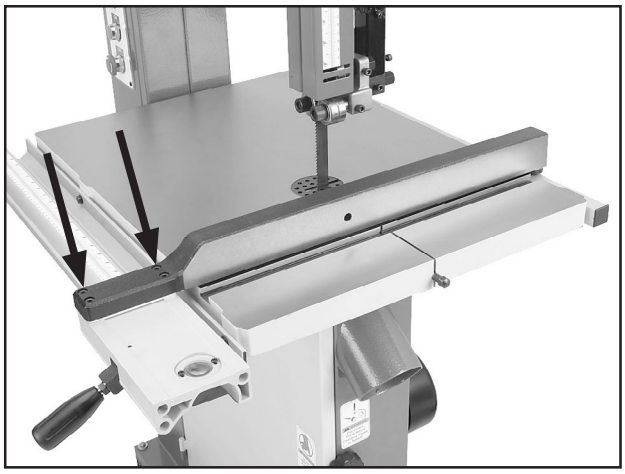


Figure 48. Four fence cap screws.

3. Adjust the fence face parallel with the edge of the miter slot.

4. Tighten the four cap screws, being careful not to move the fence.

NOTICE

Adjusting the fence parallel to the miter slot does not guarantee straight cuts. The miter slot may need to be adjusted parallel to the side of the blade. Refer to the "Aligning Table" instructions.

Miter Gauge

The miter gauge needs to be calibrated to the blade when it is first mounted in the miter slot.

To calibrate the miter gauge:

1. Use a machinist's square with one edge against the face of the miter gauge and the other against the blade face as shown in **Figure 49**.

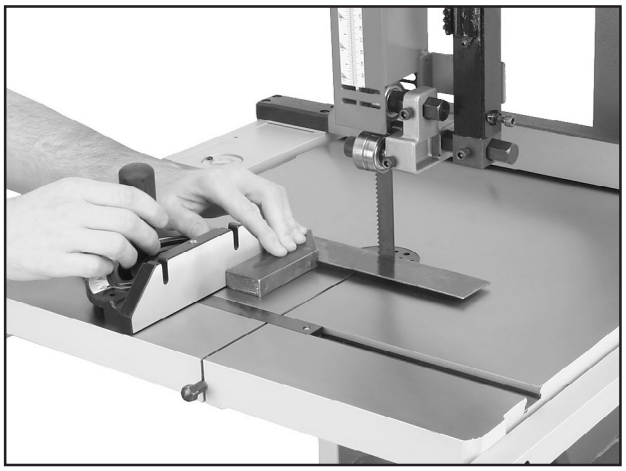


Figure 49. Squaring miter gauge to blade.

2. Loosen the lock knob on the miter gauge and adjust it flush with the edge of the square.

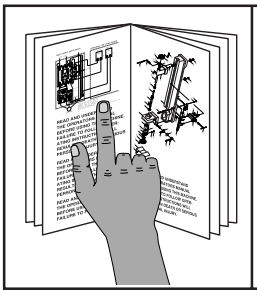
3. Tighten the lock knob, and verify the setting.

   Note: *Sometimes the tightening procedure can affect the adjustment.*

4. Loosen the screw that secures the angle pointer and adjust the pointer to the 0˚ mark on the scale.

5. Retighten the screw that secures the angle pointer.

SECTION 4: OPERATIONS

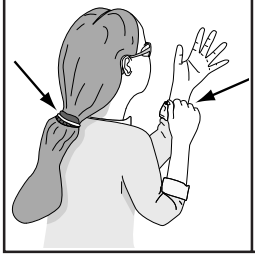


⚠WARNING

To reduce the risk of serious injury when using this machine, read and understand this entire manual before beginning any operations.

⚠WARNING

Damage to your eyes and lungs could result from using this machine without proper protective gear. Always wear safety glasses and a respirator when operating this machine.



⚠WARNING

Loose hair, clothing, or jewelry could get caught in machinery and cause serious personal injury. Keep these items away from moving parts at all times to reduce this risk.

NOTICE

If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, review industry trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

Basic Controls

Refer to **Figures 50–** and the desriptions below to become familiar with the basic controls and components of your bandsaw.

Power Switch: Disables the ON and OFF button when the key is turned to the "0" position. Enables ON and OFF button when key is turned to "1".

ON Button: Starts motor only if the OFF button is popped out and power switch key is turn to "1" position.

OFF Button: Disables the ON button. Enable the ON button by twisting the OFF button until it pops out.

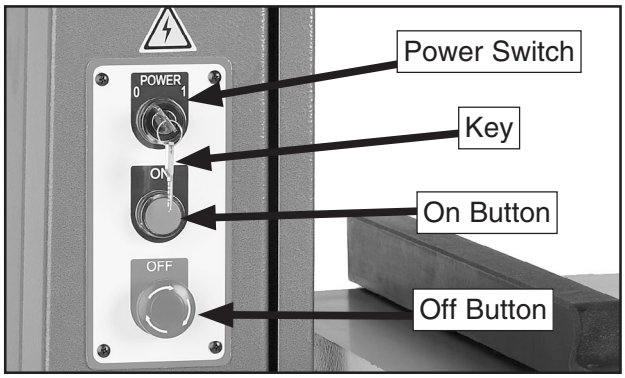


Figure 50. G0514X-X3 control panel features.

Front Controls (Figure 52)

A. Blade Tension Scale: Allows for easy monitoring of blade tension.

B. Blade Tension Handwheel: Tensions blade in gradual increments.

C. Blade Tracking Window: Allows for easy monitoring of blade tracking (refer to **Page 23**).

D. Fence, Rails, and Miter Gauge: Allows for controlled cutting at various angles.

E. Foot Brake (Figure 51, G0514X2/G0514X3): Cuts power to motor and allows bandsaw blade to be quickly brought to a stop.

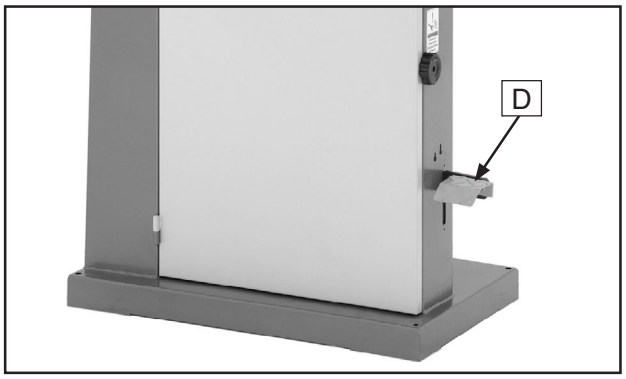


Figure 51. Foot brake (G0514X2/G0514X3).

Rear Controls (Figure 53)

F. Guide Post Handwheel and Lock Knob: Moves blade guide support quickly to the desired height on the guide post; locks setting (refer to **Page 41**).

G. Blade Tracking Knob and Lock Lever: Moves and locks blade tracking.

H. Quick Release Blade Tension Lever: Adjusts blade tension for quick blade changes.

I. Table Tilt Knob (G0514X): Tilts the table up to 5º to the left or 45º to the right.

J. Table Tilt Lock Handle (G0514X): Locks or unlocks the table at the current angle.

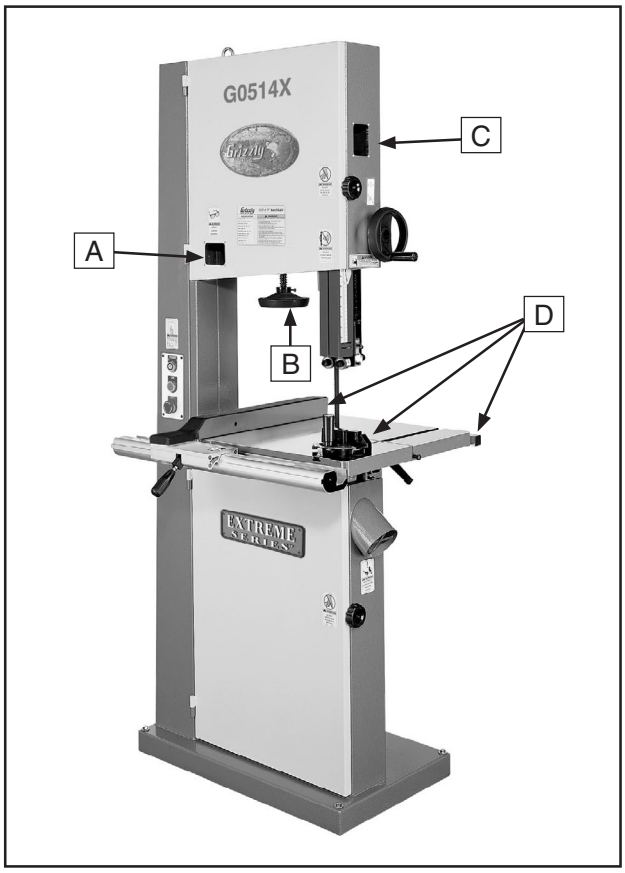


Figure 52. Front controls (G0514X).

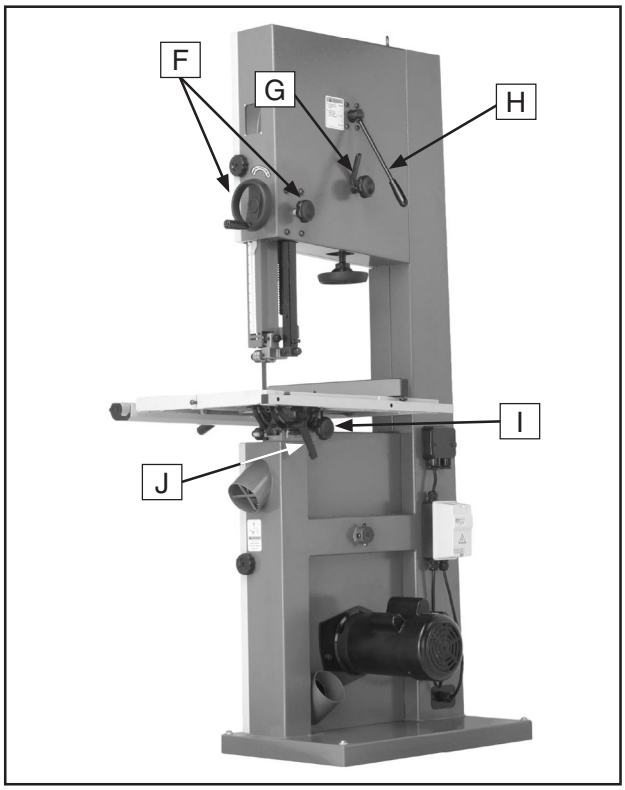


Figure 53. Rear controls (G0514X).

K. Table Tilt Lock Lever (G0514X2/G0514X3): Locks or unlocks the table at the current angle.

L. Table Tilt Handwheel (Figure 54, G0514X2/G0514X3): Tilts the table up to 5º to the left or 45º to the right (refer to **Page 41**).

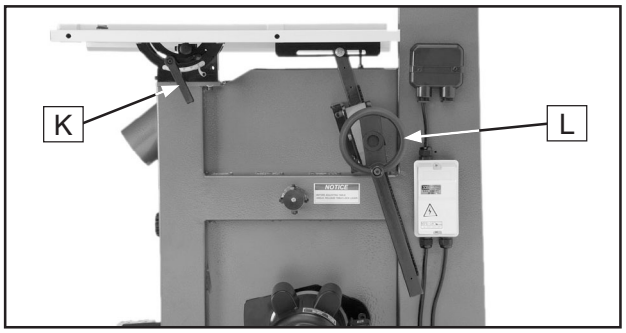


Figure 54. Table tilt controls (G0514X2/G0514X3).

Operation Overview

This overview covers the basic process that happens during a bandsaw operation. Familiarize yourself with this process to better understand the remaining parts of the **Operation** section.

To complete a typical operation, the operator does the following:

1. Examines the workpiece to make sure it is suitable for cutting.

2. Adjusts the fence away from the blade the same width of the desired cut and then locks it in place.

3. Adjusts the blade tilt, if necessary, to the correct angle of the desired cut.

4. Adjusts the blade guide height to approximately 1" from the top of the workpiece.

5. Checks to make sure the workpiece can safely pass all the way through the blade without interference from other objects.

6. Puts on safety glasses.

7. Starts the dust collector and bandsaw.

8. Holds the workpiece firmly and flatly against both the table and fence, and then pushes the workpiece into the blade at a steady and controlled rate until the workpiece moves completely beyond the blade.

The operator is very careful to keep fingers away from the blade and uses a push stick to feed narrow workpieces.

9. Stops the bandsaw.

Cutting Overview

The bandsaw is capable of performing the following cuts:

- Miters
- Angles
- Resawing
- Ripping
- Crosscutting
- Compound Angles
- Simple/Complex Curves
- Duplicate Parts
- Circles
- Beveled Curves

Basic Cutting Tips

Here are some basic tips to follow when operating the bandsaw:

- Keep the upper blade guide assembly adjusted to within 1" of the workpiece.

- Replace, sharpen, and clean blades as necessary. Make adjustments periodically to keep the saw running in top condition.

- Use light and even pressure while cutting. Light contact with the blade makes it easier to follow lines and prevents extra friction, which reduces blade life.

- Avoid twisting the blade when cutting around tight corners. Allow the blade to saw around the corners.

- Do not back the workpiece away from the blade while the saw is running.

Workpiece Inspection

Some wood workpieces are not safe to cut or may require modification before they are safe to cut.

Before cutting wood, get in the habit of inspecting all workpieces for the following:

- ***Material Type:*** This machine is intended for cutting natural and man-made wood products, and laminate covered wood products. Cutting drywall or cementitious backer board creates extremely fine dust, which may reduce the life of the bearings. This machine is NOT designed to cut metal, glass, stone, tile, etc.

- **Foreign Objects (Figure 55):** Nails, staples, dirt, rocks and other foreign objects are often embedded in wood. While cutting, these objects can become dislodged and hit the operator or break the blade, which might then fly apart. Always visually inspect your workpiece for these items. If they can't be removed, do NOT cut the workpiece.

- ***Large/Loose Knots:*** Loose knots can become dislodged during the cutting operation. Large knots can cause blade damage. Choose workpieces that do not have large/loose knots or plan ahead to avoid cutting through them.

- ***Wet or "Green" Stock:*** Cutting wood with a moisture content over 20% causes unnecessary wear on the blade and yields poor results.

- ***Excessive Warping:*** Workpieces with excessive cupping, bowing, or twisting are dangerous to cut because they are unstable and can move unpredictably when being cut. DO NOT cut excessively warped wood.

- ***Minor Warping:*** Workpieces with slight cupping can be safely supported if the cupped side faces the table or fence, as shown in **Figure 56**. On the contrary, a workpiece supported on the bowed side will rock during a cut, leading to loss of control.

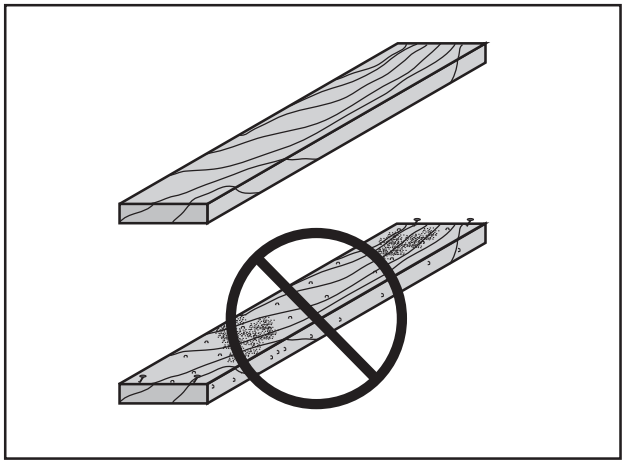


Figure 55. Choosing wood without foreign objects embedded.

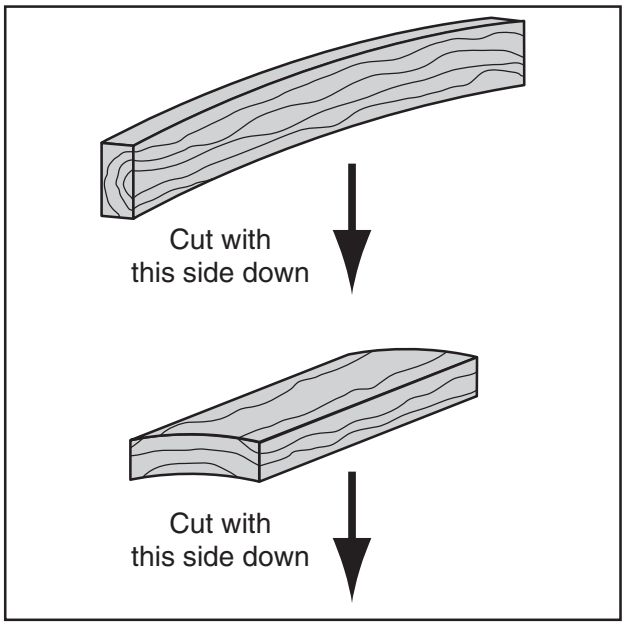


Figure 56. Cutting wood with minor warping.

⚠WARNING

Because of its unpredicatable nature, use extreme caution if cutting warped stock. The difference between acceptable and unacceptable warped stock varies from machine to machine. If you are in doubt, square-up the stock first or do not cut it.

Foot Brake

The Model G0514X2/G0514X3 is equipped with a foot brake (**Figure 57**). Use the brake to cut power to the motor and bring the blade to a halt.

NOTICE

The foot brake will not stop the bandsaw wheels and blade instantly. DO NOT become over confident and relax your safety awareness because of the foot brake feature. Make sure the bandsaw blade has stopped moving completely before leaving the machine.

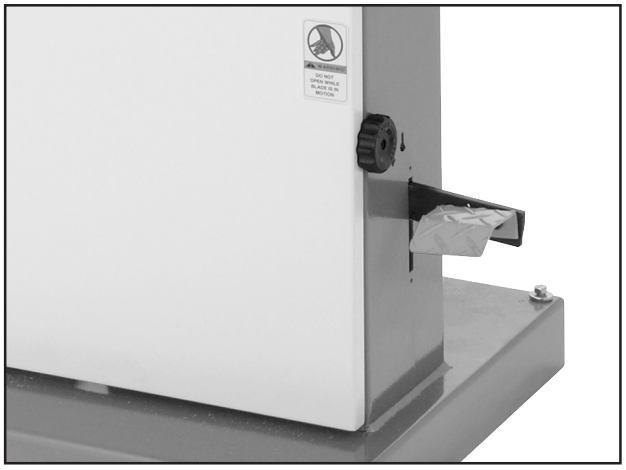


Figure 57. Foot brake installed.

Table Tilt

The bandsaw table will tilt 5˚ left and 45˚ right to provide a wide range of cutting options. Remove the positive stop bolt to tilt the table to the left.

Tilting G0514X Table

1. DISCONNECT BANDSAW FROM POWER!

2. Loosen the lock handle on the table trunnion shown in **Figure 58**.

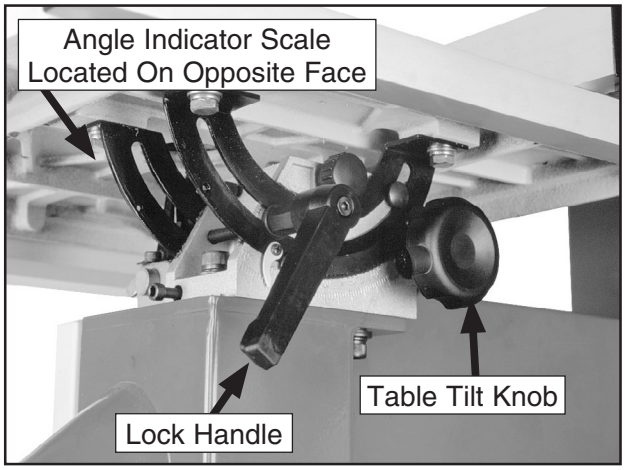


Figure 58. G0514X Table tilt controls.

3. Turn the table tilt knob to position the table to the desired angle of tilt. Refer to the angle gauge on the front table trunnion for the tilting angle.

4. To tilt the table to the left, turn the table tilt knob clockwise one turn, remove or lower the positive stop bolt, then turn the tilt knob counterclockwise.

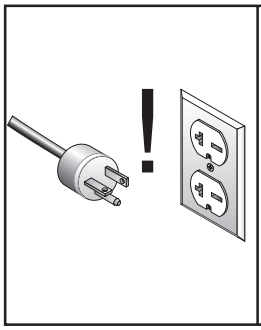
5. Retighten the lock handle to secure the table.

6. Follow **Positive Stop** instructions on **Page 25** for resettting the stop bolt and table for horizontal (0º) operations.

Tilting G0514X2/G0514X3 Table

1. DISCONNECT BANDSAW FROM POWER!

2. Loosen the table tilt lock lever shown in **Figure 59**.



⚠WARNING

Personal injury or death can occur if the bandsaw starts during table adjustment. Disconnect power from the bandsaw before performing table adjustments.

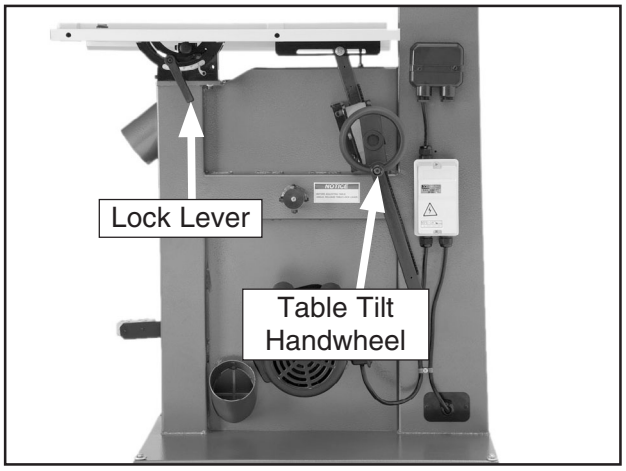


Figure 59. G0514X2/G0514X3 Table tilt controls.

3. To tilt the table to the right, turn the table tilt handwheel clockwise (**Figure 59**).

4. To tilt the table to the left, turn the table tilt handwheel clockwise one turn, lower the positive stop bolt, then turn the handwheel counterclockwise.

5. Secure the table tilt lock lever (**Figure 59**).

6. Follow "Positive Stop" instructions on **Page 25** for resettting the stop bolt and table for horizontal (0°) operations.

Guide Post

The guide post, shown in **Figure 60**, connects the upper blade guide assembly to the bandsaw. The guidepost allows the blade guide assembly to move up or down to be as close to the workpiece as possible. In order to cut accurately and safely, the bottom of the blade guide assembly must be no more than 1" above the workpiece at all times—this positioning provides the greatest blade support and minimizes the amount of moving blade exposed to the operator.

To adjust the blade guide assembly on the guide post:

1. DISCONNECT BANDSAW FROM POWER!

2. Make sure that the blade tension, blade tracking, support bearings, and blade guides are adjusted correctly.

3. Loosen the guide post lock knob shown in **Figure 60**.

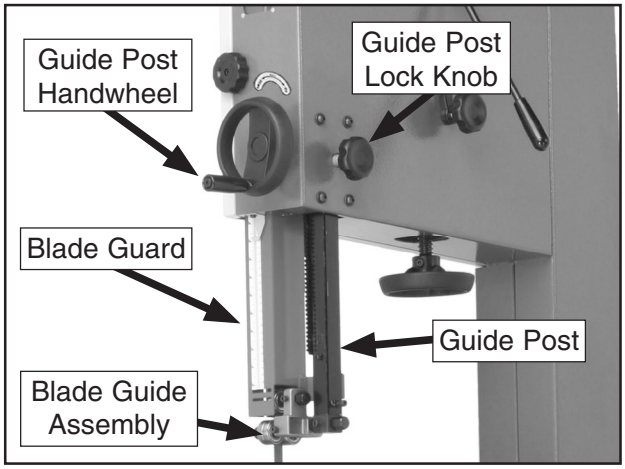


Figure 60. Guide post controls.

4. Turn the guide post handwheel to raise or lower the guide post until the upper blade guide assembly is within 1" from the top of the workpiece.

5. Lock the guide post in place with the lock knob.

Fine Tune Tracking

NOTICE

Adjusting the final blade tracking setting requires the machine to be turned *ON*.

To fine tune the tracking:

1. Close the wheel covers and turn the bandsaw ***ON***.

2. Observe the blade tracking path through the clear window on the right edge of the bandsaw as shown in **Figure 61**.

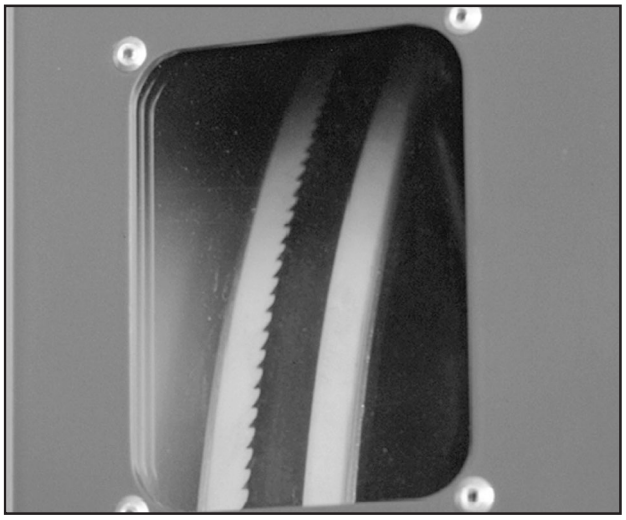


Figure 61. Blade tracking window.

3. Using the tracking controls (**Page 24**, **Figure 24**), adjust the blade so it tracks on the center of the wheel.

4. Tighten the tracking lock so the knob cannot move.

Ripping

Ripping is the process of cutting with the grain of the wood stock. For plywood and other processed wood, ripping simply means cutting down the length of the workpiece.

To make a rip cut:

1. Adjust the fence to match the width of the cut on your workpiece and lock the fence in place.

2. Adjust the blade guide assembly to the correct height.

3. After all safety precautions have been met, turn the bandsaw ***ON***. Slowly feed the workpiece into the blade and continue with the cut until the blade is completely through the workpiece. **Figure 62** shows a typical ripping operation. **Note:** *If you are cutting narrow pieces, use a push stick to protect your fingers.*

Figure 62. Ripping with a push stick.

⚠WARNING

NEVER place fingers or hands in the line of cut. In the event that something unexpected happens, your hands or fingers may be pulled into the blade. ALWAYS use a push stick when ripping narrow pieces. Failure to follow these warnings may result in serious personal injury!

Crosscutting

Crosscutting is the process of cutting across the grain of wood. For plywood and other processed wood, crosscutting simply means cutting across the width of the material.

To make a 90˚ crosscut:

1. Mark the workpiece on the edge where you want to begin the cut.

2. Adjust the blade guide assembly to the correct height and make sure the miter gauge is set to 90°.

3. Move the fence out of the way. Place the workpiece evenly against the miter gauge.

4. Hold the workpiece against the miter gauge and line up the mark with the blade.

5. After all safety precautions have been met, turn the bandsaw ***ON***. Slowly feed the workpiece into the blade and continue the cut until the blade is all the way through the workpiece. **Figure 63** shows a typical crosscutting operation.

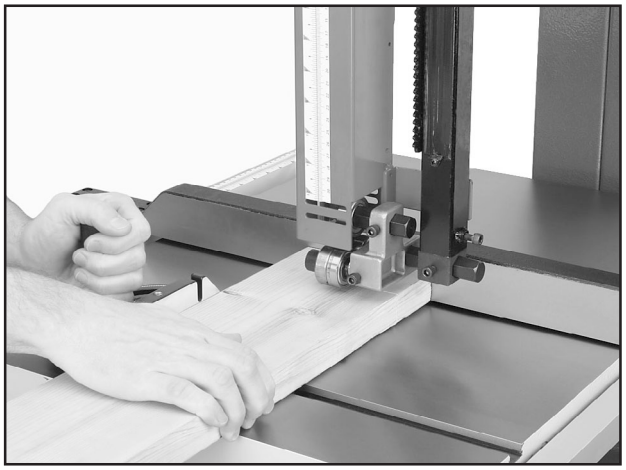


Figure 63. Crosscutting with miter gauge.

Resawing

Resawing (**Figure 64**) is the process of cutting a board into two or more thinner boards. The maximum board width that can be resawn is limited by the maximum cutting height of the bandsaw.

One of the most important considerations when resawing is blade selection. Generally, the wider blade, the better. In most applications, a hook or a skip tooth style will be desirable. Choose blades with fewer teeth-per-inch (from 3 to 6), because they offer larger gullet capacities for clearing sawdust, reducing heat buildup and reducing strain on the motor.

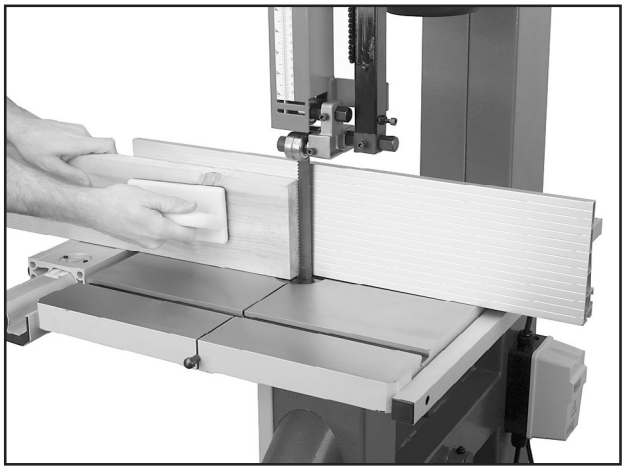


Figure 64. Resawing lumber.

⚠WARNING

When resawing thin pieces, a wandering blade (blad lead) can tear through the surface of the workpiece, exposing your hands to the blade teeth. Always use push blocks when resawing and keep your hands clear of the blade.

To resaw a workpiece:

1. Verify that the bandsaw is setup properly and that the table is perpendicular to the blade.

2. Use the widest blade your bandsaw will accept. **Note:** *The blade must also be sharp and clean.*

3. Install the resaw fence and set it to the desired width of cut and lock it in place.

> ***NOTICE***
> **The scale on the front rail will NOT be accurate when using the resaw fence.**

4. Support the ends of the board if necessary.

5. Turn the bandsaw ***ON***.

6. Using push paddles and a push stick, keep pressure against the fence and table, and slowly feed the workpiece into the moving blade until the blade is completely through the workpiece (see **Figure 64**).

Cutting Curves

When cutting curves, simultaneously feed and turn the stock carefully so that the blade follows the layout line without twisting. If a curve is so abrupt that it is necessary to repeatedly back up and cut a new kerf, use either a narrower blade or a blade with more TPI (teeth per inch), or make more relief cuts.

Always make short cuts first, then proceed to the longer cuts. Relief cuts will also reduce the chance that the blade will be pinched or twisted. Relief cuts are cuts made through the waste portion of the workpiece and are stopped at the layout line. As you cut along the layout line, waste wood is released from the workpiece, alleviating any pressure on the back of the blade. Relief cuts also make backing the workpiece out easier, if needed.

> ***NOTICE***
> **The list below displays blade widths and the corresponding minimum radii for those blade widths.**

Width	Radius
1/8"	1/8"
3/16"	3/8"
1/4"	5/8"
3/8"	1 1/4"
1/2"	2 1/2"
5/8"	3 3/4"
3/4"	5 1/2"

Stacked Cuts

One of the benefits of a bandsaw is its ability to cut multiple copies of a particular shape by stacking a number of workpieces together. Before making stacked cuts, ensure that both the table and the blade are properly adjusted to 90°. Otherwise, any error will be compounded.

To complete a stacked cut:

1. Align your pieces from top to bottom to ensure that each piece has adequate scrap to provide a clean, unhampered cut.

2. Secure all the pieces together in a manner that will not interfere with the cutting. Hot glue on the edges works well, as do brad nails through the waste portion. (Be careful not to cut into the brads or you may break the blade!)

3. On the face of the top piece, lay out the shape you intend to cut.

4. Make relief cuts perpendicular to the outline of your intended shape in areas where changes in blade direction could strain the woodgrain or cause the blade kerf to bind.

5. Cut the stack of pieces as though you were cutting a single piece. Follow your layout line with the blade kerf on the waste side of your line as shown in **Figure 65**.

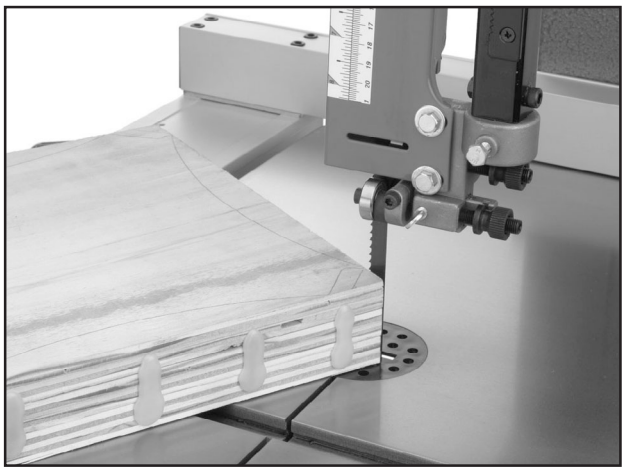


Figure 65. Typical stacked cut.

Blade Speed

The blade speed can be adjusted to 1700 or 3500 FPM. Speed adjustments are made by moving the V-belt position on the motor and wheel pulleys.

Most woodcutting can be performed successfully at the higher blade speeds. Slower blade speeds generally produce better results when cutting hardwoods, intricate curves, or when an exceptionally smooth cut is desired.

To adjust the blade speed:

1. DISCONNECT BANDSAW FROM POWER!

2. Loosen the motor mount cap screws shown in **Figure 66** and rotate the motor to loosen the V-belt.

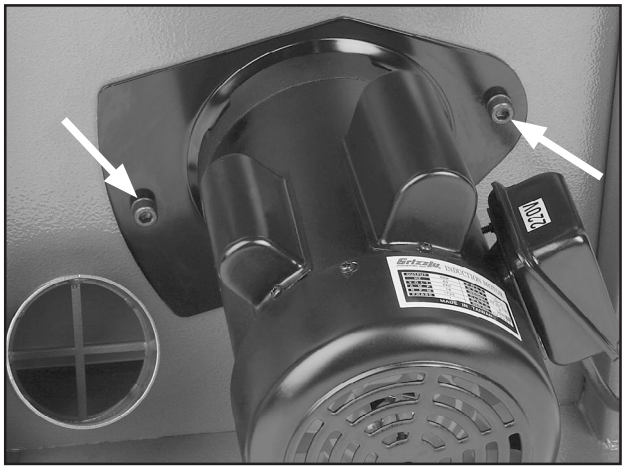


Figure 66. Motor mount cap screws.

3. Refer to **Figure 67** to locate the correct V-belt position for the desired blade speed.

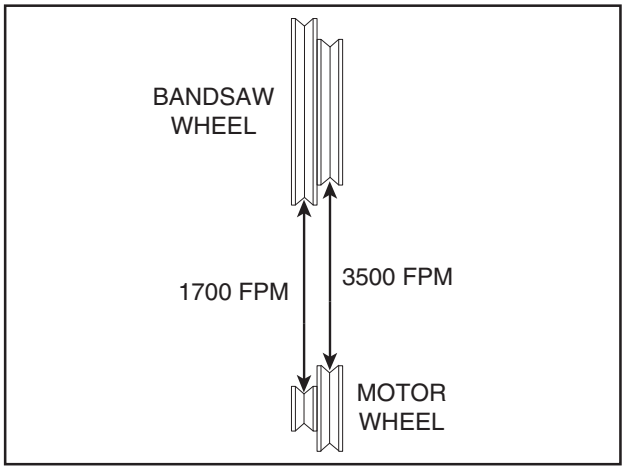


Figure 67. V-belt speeds.

4. Move the V-belt to the desired pulley.

5. Rotate the motor to tension the V-belt, then tighten the motor mount cap screws.

6. Check the V-belt tension. When tensioned correctly, the V-belt can be deflected approximately ¾" (see **Figure 68**).

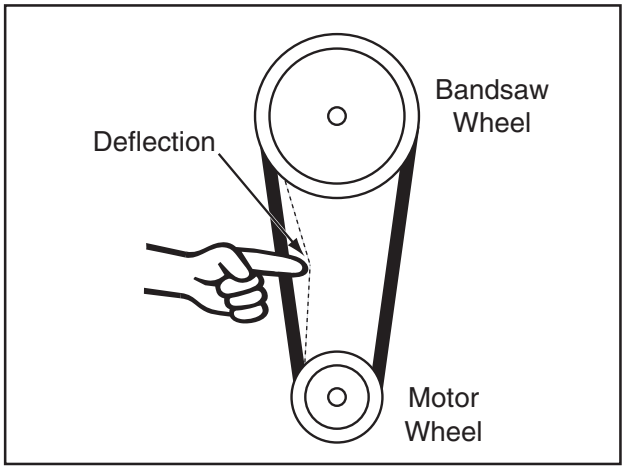


Figure 68. V-belt deflection.

Blade Information

Selecting the right blade requires a knowledge of the various blade characteristics to match the blade with the particular cutting operation.

Blade Length

Measured by the circumference, blade lengths are usually unique to the brand of your bandsaw and the distance between wheels. The Model G0514X/G0514X2/G0514X3 is designed for blades that are 143" long. Refer to **Page 50** for blade replacements.

Blade Width

Measured from the back of the blade to the tip of the blade tooth (the widest point), blade width is often the first consideration given to blade selection. Blade width dictates the largest and smallest curve that can be cut, as well as how accurately it can cut a straight line.

The Model G0514X/G0514X3 can use blades from ⅛" to 1¼" in width. Always pick the size of blade that best suits your application.

- ***Curve Cutting:*** Use the chart in **Figure 69** to determine the correct blade for curve cutting. Determine the smallest radius curve that will be cut on your workpiece and use the corresponding blade width.

- ***Straight Cutting*****:** Use the largest width blade that you own. Narrow blades can cut

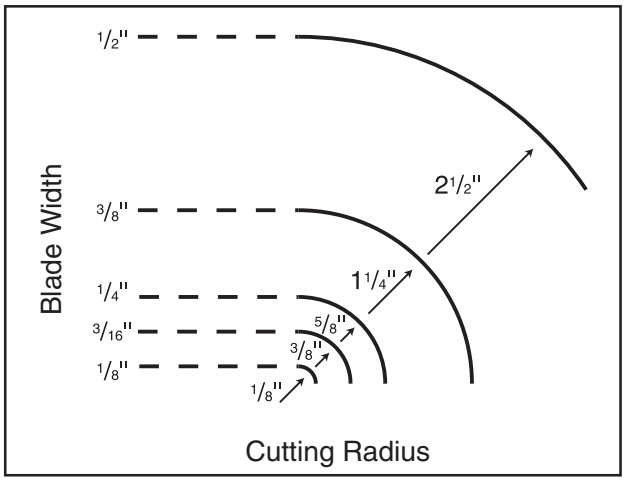


Figure 69. Blade width radii.

tight curves (a small radius) but are not very good at cutting straight lines because they naturally wander (blade lead). However, larger blades are much better at cutting straight lines, but function poorly at cutting small curves because of their size.

Tooth Style

When selecting blades, another option to consider is the shape, gullet size, teeth set and teeth angle—otherwise known as “Tooth Style." **Figure 70** shows the three main categories of tooth style:

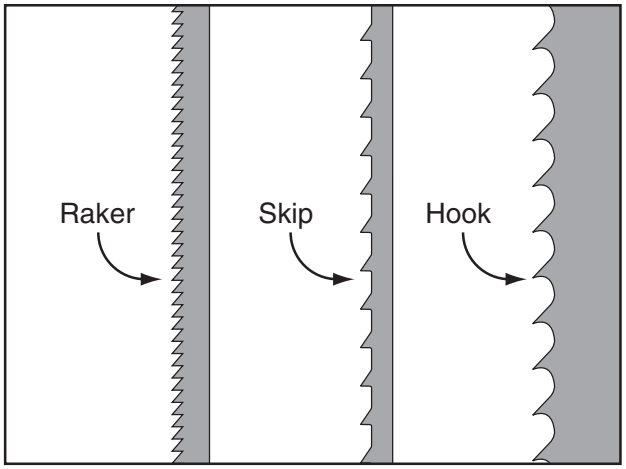


Figure 70. Raker, skip & hook tooth styles.

- ***Raker*:** This style is considered to be the standard because the tooth size and shape are the same as the tooth gullet. The teeth on Raker blades usually are very numerous, have no angle, and produce cuts by scraping the material; these characteristics result in very smooth cuts, but do not cut fast and generate more heat while cutting.

- ***Skip*:** This style is similar to a raker blade that is missing every other tooth. Because of the design, skip toothed blades have a much larger gullet than raker blades, and therefore, cut faster and generate more heat. However, these blades also leave a rougher cut than raker blades.

- ***Hook*:** The teeth on this style have a positive angle (downward) which makes them dig into the material, and the gullets are usually rounded for easier waste removal. These blades are excellent for the tough demands of resawing and ripping thick material.

Tooth Pitch

Usually measured as TPI (teeth per inch), tooth pitch determines the size of the teeth. More teeth per inch (fine pitch) will cut slower, but smoother; while fewer teeth per inch (coarse pitch) will cut rougher, but faster. As a general rule, choose blades that will have at least three teeth in the material at all times. Use fine pitched blades on harder woods and coarse pitched blades on softer woods.

Blade Care

A bandsaw blade is a delicate piece of steel that is subjected to tremendous strain. You can obtain longer use from a bandsaw blade if you give it fair treatment and always use the appropriate feed rate for your operation.

Be sure to select blades with the proper width, style, and pitch for each application. The wrong choice of blades will often produce unnecessary heat which will shorten the life of your blade.

A clean blade will perform much better than a dirty blade. Dirty or gummed up blades pass through the cutting material with much more resistance than clean blades. This extra resistance also causes unnecessary heat.

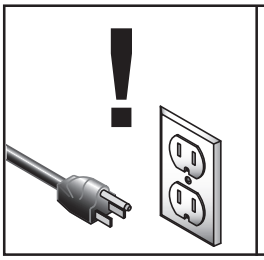
Blade Breakage

Many conditions may cause a bandsaw blade to break. Blade breakage is unavoidable, in some cases, since it is the natural result of the peculiar stresses that bandsaw blades are subjected to. Blade breakage is also due to avoidable circumstances. Avoidable breakage is most often the result of poor care or judgement on the part of the operator when mounting or adjusting the blade or support guides.

The most common causes of blade breakage are:

- Faulty alignment and adjustment of the guides.
- Forcing or twisting a wide blade around a curve of short radius.
- Feeding the workpiece into the blade too fast.
- Tooth dullness or absence of sufficient set.
- Incorrect tension.
- Top blade guide assembly set too high above the workpiece.
- Using a blade with a lumpy or improperly finished braze or weld.
- Continuously running the bandsaw when not in use.

Blade Changes



⚠WARNING

Always disconnect power to the machine when changing blades. Failure to do this may result in serious personal injury.

⚠CAUTION

All saw blades are dangerous and may cause personal injury. To reduce the risk of being injured, wear leather gloves when handling saw blades.

To remove a blade:

1. DISCONNECT BANDSAW FROM POWER!
2. Release the blade tension by turning the blade tension quick release lever to the left.
3. Remove the table insert and the table pin. Adjust the upper and lower guide bearings as far away as possible from the blade.
4. Open the upper and lower wheel covers, and with gloved hands, slide the blade off of both wheels.
5. Rotate the blade 90˚ and slide it through the slot in the table.

To replace a blade:

1. Slide the blade through the table slot, ensuring that the teeth are pointing down toward the table. **Note:** *If the teeth will not point downward in any orientation, the blade is inside-out. Put on heavy gloves, remove the blade, and twist it right side-out.*

2. Slip the blade through the guides, and mount it on the upper and lower wheels (**Figure 71**).

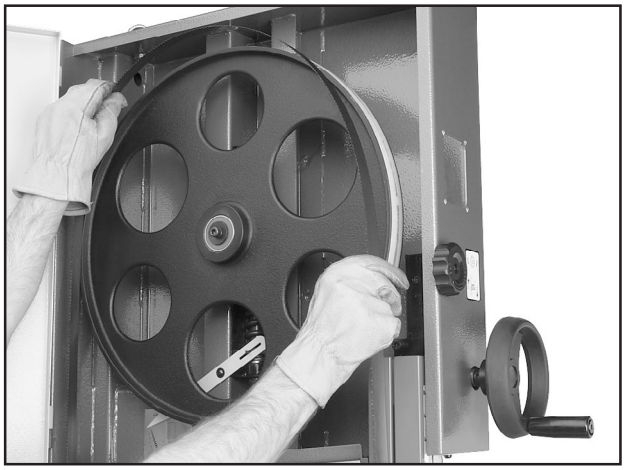


Figure 71. Placing blade on the wheels.

3. Tighten the blade tension lever.

4. Apply tension to the blade by turning the tension control knob. Rotate the upper wheel slowly by hand as tension is applied to allow the blade to center itself on the wheel. Adjust tracking if needed.

5. Adjust tension as described **Page 30**.

6. Adjust the upper/lower guide bearings and the support bearings.

7. Close the wheel covers.

8. Replace the table insert and table pin.

SECTION 5: ACCESSORIES

143" Carbon Steel Replacement Blades for the Model G0514X/G0514X2/G0514X3.

MODEL	WIDTH	TPI
H4826	1/8"	14 RAKER
H4827	1/4"	6 HOOK
H4828	1/4"	18 RAKER
H4829	3/8"	10 RAKER
H4830	1/2"	6 HOOK
H4831	1/2"	10 RAKER
H4832	3/4"	3 HOOK
H4833	1"	6 HOOK
H4834	1"	2 HOOK
H4835	1 1/4"	1.3 HOOK

G1928—Bandsaw Handbook
This is the bandsaw bible. Covers step-by-step instructions for basic/advanced cutting techniques. Also includes advanced maintenance, service and troubleshooting procedures, as well as information on bandsaw history/design and blade metallurgy. 320 pages.

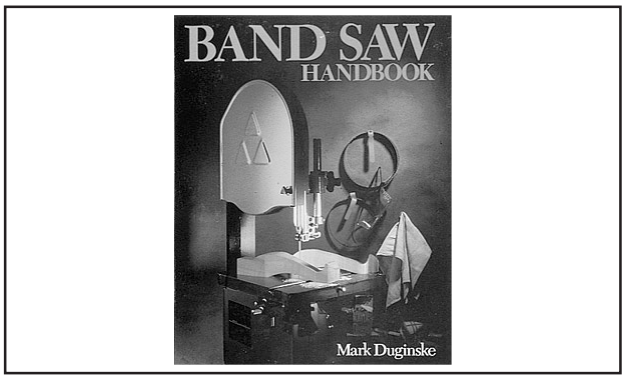


Figure 72. Bandsaw handbook.

G1094—Bandsaw Power Feeder with Fence, Single-Phase

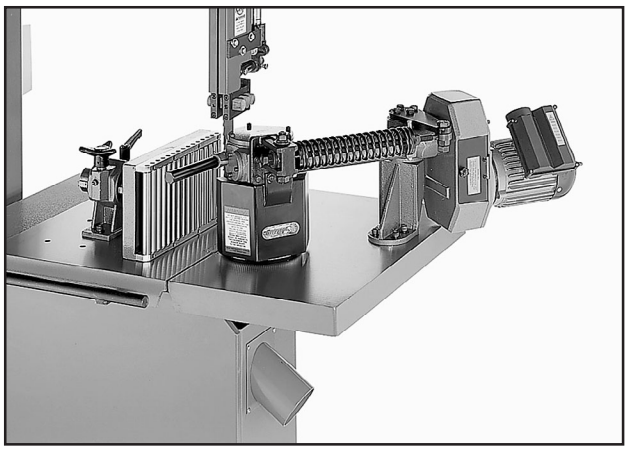


Figure 73. G1094 Bandsaw Power Feeder.

T10117—Big Mouth Dust Hood with Stand
Capture dust from any machine operation with this Big Mouth Dust Hood. Simply attach a 4" dust collection hose and adjust the hood right where you need it. The free standing base eliminates complicated machine set-ups and the tilting 16 3/8" x 12 7/8" hood adjusts from 23" to 43" high. Every shop needs one of these!

Figure 74. T10117 Big Mouth Dust Hood.

Call 1-800-523-4777 To Order

G1163—1HP Dust Collector
Effective dust collection not only keeps your shop cleaner and more pleasant to work in, it can also keep you healthier. Our systems feature powerful motors and convenient collection bags - so they're ideal for just about any-sized woodworking operation.

Figure 75. G1163 1HP dust collector.

T20501—Face Shield Crown Protector 4"
T20502—Face Shield Crown Protector 7"
T20503—Face Shield Window
T20452—"Kirova" Anti-Reflective S. Glasses
T20451—"Kirova" Clear Safety Glasses
H0736—Shop Fox® Safety Glasses
H7194—Bifocal Safety Glasses 1.5
H7195—Bifocal Safety Glasses 2.0
H7196—Bifocal Safety Glasses 2.5

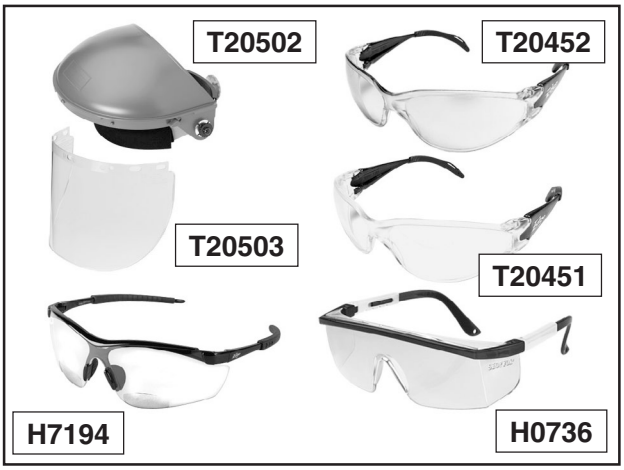


Figure 76. Eye protection assortment.

H2499—Small Half-Mask Respirator
H3631—Medium Half-Mask Respirator
H3632—Large Half-Mask Respirator
H3635—Cartridge Filter Pair P100
Wood dust has been linked to nasal cancer and severe respiratory illnesses. If you work around-dust everyday, a half-mask respirator can be a lifesaver. Also compatible with safety glasses!

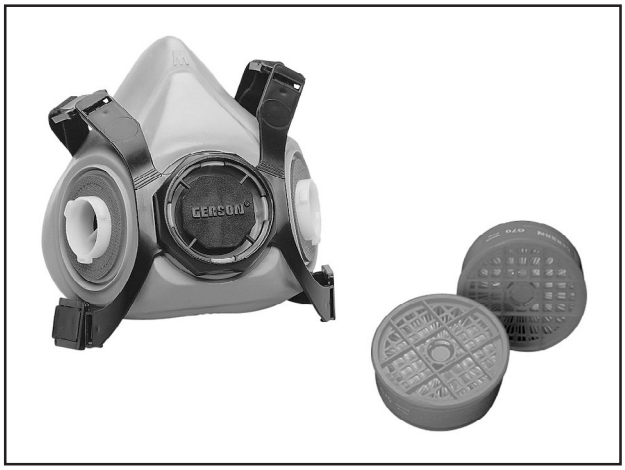


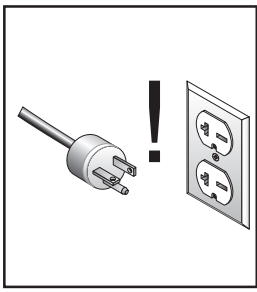
Figure 77. Half-mask respirator with disposable cartridge filters.

G5562—SLIPIT® 1 Qt. Gel
G5563—SLIPIT® 12 oz Spray
G2871—Boeshield® T-9 12 12 oz Spray
G2870—Boeshield® T-9 4 oz Spray
H3788—G96® Gun Treatment 12 oz Spray
H3789—G96® Gun Treatment 4.5 oz Spray

Figure 78. Recommended products for protecting unpainted cast iron/steel on machinery.

Call 1-800-523-4777 To Order

SECTION 6: MAINTENANCE



⚠WARNING
Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.

Schedule

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

Daily Check:
- Loose mounting bolts.
- Damaged saw blade.
- Worn or damaged wires.
- Any other unsafe condition.

Monthly Check:
- V-belt tension, damage, or wear.
- Clean/vacuum dust buildup from inside cabinet and off motor.

Cleaning

Cleaning the Model G0514X/G0514X2/G0514X3 is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it. Treat all unpainted cast iron and steel with a non-staining lubricant after cleaning.

Unpainted Cast Iron

Protect the unpainted cast iron surfaces on the table by wiping the table clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces.

Keep tables rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9 (see **Section 5: Accessories** on **Page 50** for more details).

Brushes

The bandsaw is equipped with two lower brushes. The brushes should be checked daily and cleaned when they become dirty. There are adjustment brackets that allow the brushes to be adjusted for bristle wear. Refer to **Adjusting Wheel and Blade Brushes** on **Page 62** for adjustment details.

Lubrication

Since all bearings are sealed and permanently lubricated, simply leave them alone until they need to be replaced. Do not lubricated them.

This machine does need lubrication in other places. An essential part of lubrication is cleaning the components before lubricating them.

This step is critical because dust and chips build up on lubricated components, which makes them hard to move. Simply adding more grease to built-up grime will not result in smooth moving parts.

Clean the components in this section with an oil/grease solvent cleaner, such as shown on **Page 20** of this manual.

Blade Guide Rack and Pinion

Lubricant	Frequency	Qty
Multi-purpose GL2 Grease	As Needed	Thin Coat

To lubricate the blade guide rack and pinion:

1. DISCONNECT BANDSAW FROM POWER!
2. Lower the blade guide until it reaches the table.
3. Using a rag and mineral spirits, wipe off any existing grease and sawdust buildup on the rack (see **Figure 79**).

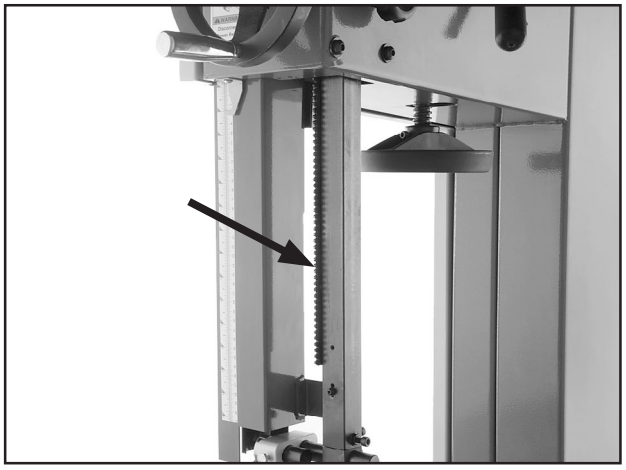


Figure 79. Example of rack lubrication location.

4. Apply a thin coat of multi-purpose GL2 grease to the rack.
5. Move the blade guide up and down several times and remove any excess grease to help prevent sawdust buildup.

Tension Adjustment Assembly

Lubricant	Frequency	Qty
Multi-purpose GL2 Grease	As Needed	Thin Coat

To lubricate the tension adjustment assembly:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the top wheel cover and look through the top of the wheel.
3. Using a rag and mineral spirits, wipe off any existing grease and sawdust buildup on the blade tension adjustment assembly and tension lever cam.
4. Apply a thin coat of multi-purpose GL2 grease to the tension adjustment assembly and tension lever cam (see **Figure 80**).

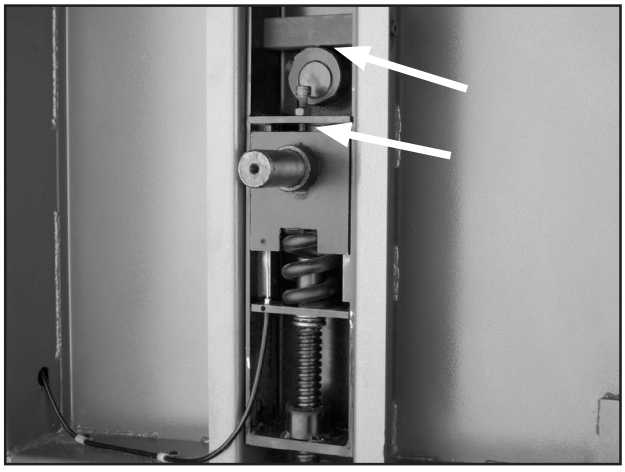


Figure 80. Example of tension adjustment assembly locations (top wheel removed for clarity).

Table Tilt Rack and Pinion Assembly (G0514X2/G0514X3 Only)

Lubricant	Frequency	Qty
Multi-purpose GL2 Grease	As Needed	Thin Coat

To lubricate the table tilt rack and pinion assembly:

1. DISCONNECT BANDSAW FROM POWER!

2. With the table perpendicular to the blade, and using a rag and mineral spirits, wipe off all existing grease and sawdust buildup from the rack.

3. Move the table up to its maximum 45˚ angle and wipe (**Figure 81**) off all existing grease and sawdust buildup from the rack.

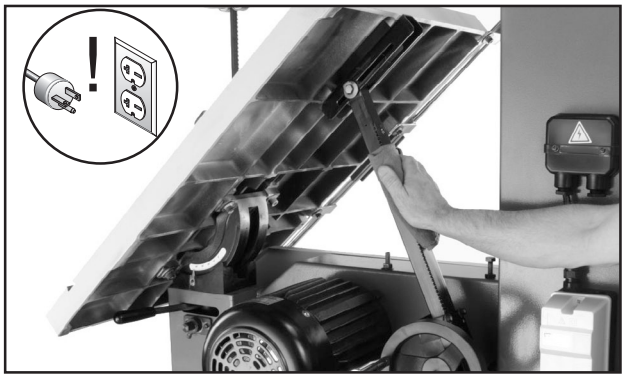


Figure 81. Example of lubricating table tilt rack and pinion assembly.

4. Apply a thin coat of muilti-purpose grease to the rack.

5. Move the table up and down several times to distribute the grease, then wipe off any excess grease.

Trunnion

Lubricant	Frequency	Qty
Multi-purpose GL2 Grease	As Needed	Thin Coat

To lubricate the trunnion, do these steps:

1. DISCONNECT BANDSAW FROM POWER!

2. Move the table up until it reaches its maximum 45˚ angle, and using a rag and mineral spirits, wipe off all excess grease and sawdust from the trunnion.

3. Apply a thin coat of light all purpose grease to the outside surfaces of the trunnion (**Figure 82 & 83**).

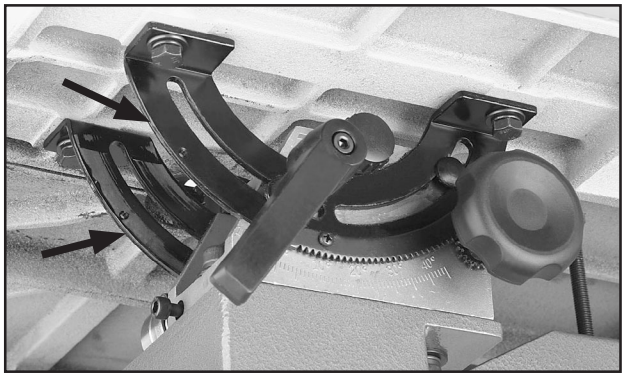


Figure 82. Trunnion lubrication location (G0514X).

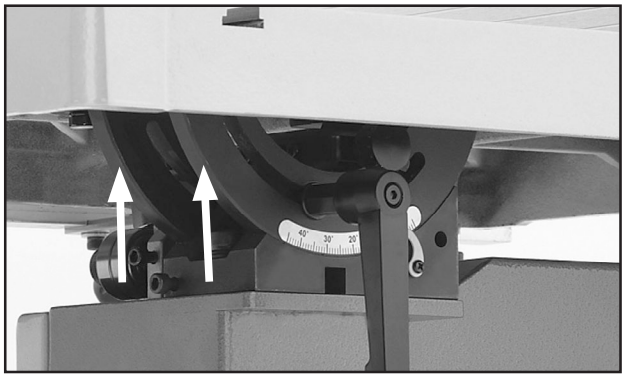


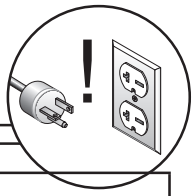
Figure 83. Trunnion lubrication location (G0514X2/G0514X3).

4. Move the table down and then back up to distribute the grease, then wipe off any excess grease from the trunnion.

SECTION 7: SERVICE

Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

Troubleshooting



Symptom	Possible Cause	Possible Solution
Machine does not start or a breaker trips.t	1. Emergency stop button engaged/at fault.	1. Rotate button to reset/replace button.
	2. Switch disabling key removed.	2. Reinstall switch disabling key.
	3. Door safety switch disengaged/at fault.	3. Close door or adjust/replace switch.
	4. Thermal overload relay in mag switch tripped.	4. Allow relay/motor to cool. If necessary, press reset button inside switch.
	5. Break or short in wiring; or loose or corroded connections.	5. Trace/replace broken or corroded wires; fix loose connections.
	6. Plug or receptacle is corroded or miswired.	6. Correct the wiring.
	7. Power supply switched off/has incorrect voltage.	7. Switch power supply on/verify voltage.
	8. Motor connection wired incorrectly.	8. Wire motor correctly. Refer to inside junction box cover or **Page 70** (G0514X), **Page 72** (G0514X2), or **Page 74** (G0514X3).
	9. Contactor has poor contacts or is at fault.	9. Test all legs for power, test field coil, and fix contacts or replace if at fault.
	10. Blown fuse/tripped circuit breaker.	10. Replace/reset fuse or circuit breaker. Repair possible short or circuit overload.
	11. Motor ON/OFF switch at fault.	11. Replace switch.
	12. Start capacitor has blown.	12. Test/replace if at fault.
	13. Centrifugal switch at fault.	13. Adjust/replace centrifugal switch.
	14. Motor at fault.	14. Test for shorted windings or bad bearings; repair or replace.
Main motor chatters during startup or during operation.	1. Phase converter (if used) wild wire connected to wrong terminal(G0514X3).	1. Connect wild wire to the machine power supply terminal that is not part of the switch coil circuit (G0514X3).
	2. Power supply has incorrect voltage on one or more legs.	2. Contact electrician to check incoming voltage.
Machine operates in reverse.	1. Power connections wired out of phase (G0514X3).	1. Swap two power incoming power leads at the motor (G0514X3).

Symptom	Possible Cause	Possible Solution
Machine has excessive vibration or noise.	1. V-belt tension incorrect. 2. Bent, dull, or damaged blade. 3. Loose or damaged blade. 4. Blade weld contacting support bearing or blade guides. 5. Loose machine component. 6. Machine incorrectly mounted on floor. 7. Phase converter (if used) wild wire connected to wrong terminal(G0514X3). 8. Motor fan rubbing on fan cover. 9. V-belt worn or damaged. 10. Wheels not coplanar. 11. V-belt has a high spot. 12. Centrifugal switch out of adjustment; at fault. 13. Pulley loose or not in alignment; shaft bent. 14. Worn wheel bearing. 15. Wheel tires worn or incorrectly installed. 16. Wheels out of balance. 17. Motor bearings worn or damaged.	1. Tighten V-belt. See **Page 59.** 2. Replace blade (**Page 49**). 3. Tighten or replace blade. 4. Use file or stone to smooth and round the back of the blade. 5. Tighten loose component. 6. Level/shim base; tighten/adjust mounting hardware or feet. 7. Connect wild wire to the machine power supply terminal that is not part of the switch coil circuit (G0514X3) 8. Fix/replace fan cover; replace loose or damaged fan. 9. Replace V-belt. (Use link belts if possible.) See **Page 60**. 10. Adjust wheels coplanar (**Page 65**). 11. Replace/adjust the V-belt (**Page 60**). 12. Adjust/replace centrifugal switch. 13. Replace worn pulley, key, and shaft, and realign. 14. Check/replace wheel bearing. 15. Replace or re-install tires. 16. Replace wheels. 17. Replace motor bearings or replace motor.
Machine stalls or slows when operating.	1. Too much pressure when feeding workpiece. 2. Workpiece too moist or material not suitable for machine. 3. Workpiece is warped. 4. Fence incorrectly adjusted. 5. Belt(s) slipping. 6. Run capacitor at fault. 7. Motor connection wired incorrectly. 8. Motor is wired out of phase (G0514X3). 9. Motor overheated. 10. Contactor has poor contacts or is at fault. 11. Centrifugal switch at fault. 12. Motor at fault.	1. Reduce pressure when feeding workpiece. 2. Only cut wood and ensure moisture is below 20%. 3. Straighten workpiece or use a different one. 4. Adjust/calibrate fence. 5. Tension/replace belt(s); ensure pulleys are aligned. 6. Test/repair/replace. 7. Review wiring diagram on motor cover; correct wire connections. 8. Swap any two incoming power leads. 9. Let cool, clean motor, and reduce workload. 10. Test all legs for power, test field coil, and fix contacts or replace if at fault. 11. Adjust/replace centrifugal switch if available. 12. Test for shorted windings, bad bearings and repair or replace.
Miter bar binds in miter slot.	1. Miter slot dirty or gummed up.	1. Carefully clean miter slot.
Table does not tilt to 90 degrees.	1. Pointer or scale calibrated incorrectly. 2. Positive stop bolt not set correctly.	1. Calibrate pointer/scale at true 90 degrees (**Page 25**). 2. Adjust positive stop bolt.
Table does not tilt to 45 degrees.	1. Pointer or scale calibrated incorrectly. 2. Machine component blocking path.	1. Calibrate pointer/scale at true 45 degrees. 2. Remove component blocking table.

Symptom	Possible Cause	Possible Solution
Table hard to tilt.	1. Sawdust or pitch trapped between trunnion and base. 2. Metal burrs on trunnion.	1. Calibrate pointer/scale at true 45 degrees. 2. Remove burrs.
The cuts are rough, or show scoring.	1. Blade is overloaded and twists. 2. The blade TPI is too coarse. 3. The blade is loose and slipping on wheels. 4. Blade tracking is incorrect. 5. The blade has missing or bent teeth. 6. The blade has a faulty weld.	1. Decrease the feed rate. 2. Use the correct blade for material and speed of cut. 3. Adjust bade tension as required. 4. Adjust the blade tracking back to normal. 5. Replace the blade (**Page 49**). 6. Replace the blade (**Page 49**).
Blade or teeth break.	1. Blade tension is incorrect. 2. Incorrect blade for application. 3. The feed is too heavy or blade speed is wrong. 4. Cutting corners too sharply. 5. Blade used when dull. 6. Blade tracking is wrong. 7. Blade guide adjustment at fault. 8. Inadequate blade support. 9. Blade weld at fault. 10. Wheel tires worn or incorrectly installed. 11. Fence or miter slot out of alignment with blade.	1. Adjust blade tension (**Page 30**). 2. Use correct blade for application. 3. Reduce feed rate or increase blade speed (**Page 38**). 4. Use a wider arc on outside cuts, or use relief cuts to make tight inside cuts. 5. Replace the blade (**Page 49**). 6. Adjust the blade tracking back to normal (**Page 23**). 7. Adjust blade guide bearings for correct blade support. 8. Adjust upper blade guide so it is as close as possible to workpiece. 9. Replace with btlade from different manufacturer (**Page 49**). 10. Replace or re-install tires. 11. Align table miter slot and fence with blade (**Page 34**).
Blade wears on one side, slows, smokes or shows overheating.	1. Blade contacting table insert. 2. The blade guides are worn or mis-adjusted. 3. The blade has insufficient support. 4. Blade is installed backwards. 5. Blade spinning backwards due to out of phase wiring (3-phase only, G0514X3). 6. Too much side pressure when feeding workpiece. 7. The wheels are out of alignment. 8. Dull or incorrect blade. 9. Blade is bell-mouthed. 10. Fence not parallel with blade (pressure at blade backside). 11. Table top surface is not parallel or square to blade.	1. Adjust blade guide bearings to eliminate excess side pressure. Adjust table for correct blade clearance and miter slot alignment. 2. Tighten the blade guide bracket. 3. Tighten the blade guide as close to the workpiece as possible. 4. Check blade rotation as described in Test Run" and reverse blade if necessary. 5. Switch two of the current carrying wires at the terminal strip. 6. Feed workpiece straight into the blade. 7. Adjust the wheels so they are coplanar (**Page 65**). 8. Replace blade (**Page 49**). 9. Install new blade. 10. Adjust fence parallel with blade (**Page 34**). 11. Adjust/shim table/trunnion position until blade and table are parallel and square.
Sawdust buildup inside cabinet.	1. Clogged dust port. 2. Low CFM (airflow) from dust collection system.	1. Clean out dust port. 2. Repair ducting for leaks or clogs, move dust collector closer to machine, install a stronger dust collector.

Symptom	Possible Cause	Possible Solution
Blade tracks incorrectly, or comes off wheels.	1. Tracking is not adjusted properly. 2. Wheels are not coplanar. 3. Blade tension is too loose. 4. Blade guides need adjustment. 5. Feeding workpiece too fast. 6. Incorrect blade for bandsaw. 7. Blade is bell-mouthed, worn or dull. 8. Rubber tire on wheel is damaged or worn.	1. Adjust tracking (**Page 23**). 2. Adjust wheel coplanarity (**Page 65**). 3. Increase blade tension (**Page 30**). 4. Adjust blade guides (**Page 32**). 5. Feed workpiece slower (**Page 38**). 6. Install correct blade for machine. 7. Install new blade, and de-tension blade when not in use. 8. Replace rubber tires.
The cut is crooked, or the blade wanders (blade lead).	1. The feed pressure is too high or the blade speed is wrong. 2. The blade tension is low. 3. The blade is dull or damaged. 4. Inadequate blade support. 5. Incorrect blade for application. 6. The blade tracking is wrong. 7. Table is loose. 8. Fence or miter slot out of alignment with blade. 9. Blade guide alignment at fault.	1. Adjust feed rate and cutting speed as required. 2. Increase the blade tension (**Page 30**). 3. Replace the blade (**Page 49**). 4. Adjust upper blade guide so it is as close as possible to workpiece (**Page 32**). 5. Use wider blade. 6. Adjust the blade tracking back to normal. 7. Tighten table trunnion mounting bolts or tilt lock lever. 8. Align table miter slot and fence with blade. 9. Adjust blade guide bearings for correct blade support.

Checking V-Belt

To ensure optimum power transmission from the motor to the blade, the V-belt must be in good condition and operate under proper tension. The belt should be checked for cracks, fraying, and wear. Belt tension should be checked at least every 3 months—more often if the bandsaw is used daily.

To check the V-belt:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the lower wheel cover.
3. Note the condition of the V-belt. If the V-belt is cracked, frayed, or glazed; it should be replaced as soon as convenient.
4. Push the center of the V-belt. Note the amount of deflection (**Figure 84**). If deflection is more than ¾", re-tension the V-belt.

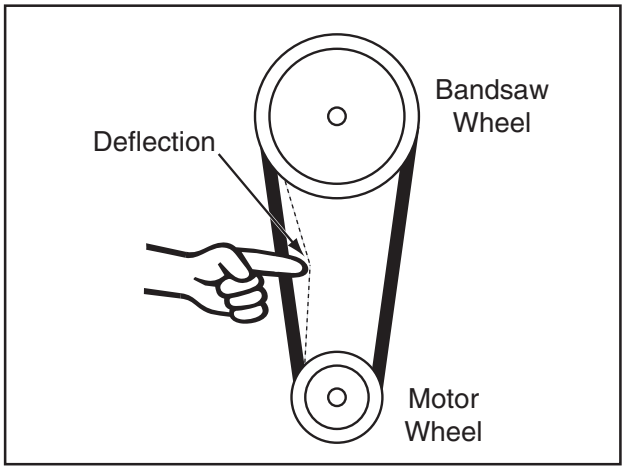


Figure 84. V-belt deflection.

Tensioning V-Belt

Tools Needed: **Qty**
Hex Wrench 6mm.....1

To tension the V-belt:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the lower wheel cover.
3. Loosen the motor mount screws shown in **Figure 85**.

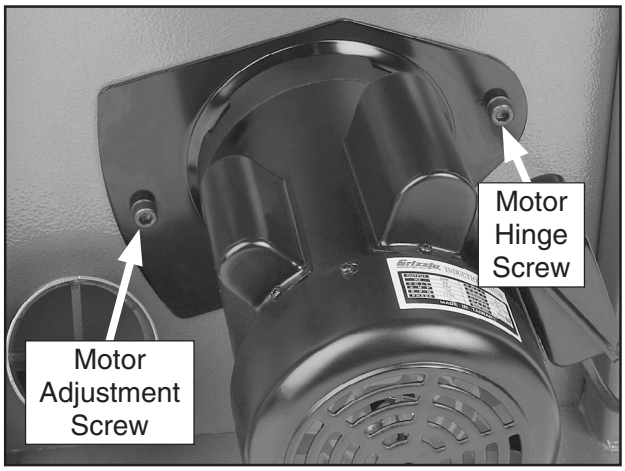


Figure 85. Motor mount screws.

4. Rotate the motor down to tension the V-belt, then tighten the motor adjustment screw.
5. Push the center of the V-belt. If deflection is approximately ¾" with moderate pressure from your thumb or finger, then the tension is correct. If the deflection is more than ¾", repeat **Steps 3 & 4**.
6. When the V-belt tension is correct, tighten the motor hinge screw and close the lower wheel cover.

Replacing V-Belt

Tools Needed: **Qty**
Hex Wrench 6mm.....1
Hex Wrench 8mm.....1

To replace the V-belt:

1. DISCONNECT BANDSAW FROM POWER!

2. Open both wheel covers, and remove the blade.

3. Loosen the motor mount screws shown in **Figure 85**.

4. Rotate the motor up to loosen the V-belt, then tighten the motor adjustment screw.

5. Pull the V-belt off of the motor pulley.

6. Unthread the wheel mount bolt shown in **Figure 86** and slide the lower wheel off of the bearing shaft.

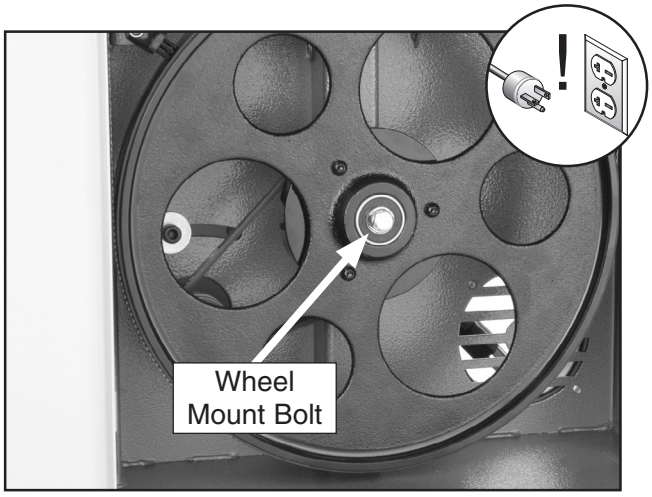


Figure 86. Example of wheel mount bolt.

7. Slip the old V-belt off of the wheel pulley and install the new V-belt in its place.

8. Install the lower wheel back onto the bearing shaft and replace/tighten the wheel mount bolt.

9. Slip the new V-belt onto the motor pulley.

10. Rotate the motor down to tension the V-belt, then tighten the motor adjustment screw.

11. Check the V-belt tension and adjust if necessary as described in the **Tensioning V-Belt** instructions on **Page 59**.

12. When the V-belt tension is correct, tighten the motor hinge bolt and close the lower wheel cover.

Blade Lead

Bandsaw blades commonly wander off the cut line when sawing, as shown in **Figure 87**. This is called blade lead. Blade lead is commonly caused by too fast of a feed rate, a dull or abused blade, or improper tension. If your blade is sharp/undamaged and you still have blade lead, perform the following instructions.

Tools Needed: **Qty**
Scrap Wood Cut to ¾" x 3" x 17" 1

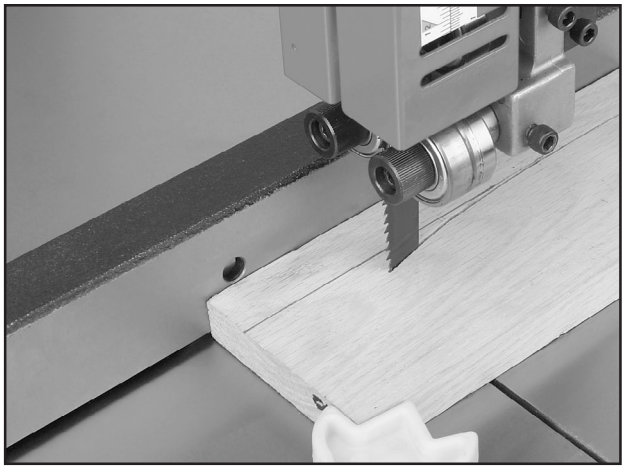


Figure 87. Blade leading away from line of cut.

To correct blade lead:

1. Use less pressure when feeding the workpiece through the cut.

2. Check that the miter slot or fence is parallel to the blade line, and correct if necessary.

3. Check for proper blade tension. If the blade tension is correct and it is not convenient to replace the blade, compensate for lead by skewing the fence or adjusting the table.

To skew your fence:

1. Cut a piece of scrap wood approximately ¾" thick x 3" wide x 17" long. On a wide face of the board, draw a straight line parallel to the long edge.

2. Cut halfway through the board on the line by pushing it into the blade. Turn the bandsaw ***OFF*** and wait for the blade to stop.

3. Clamp the board to the bandsaw table without moving it. Now slide the fence over to the board so it barely touches one end of the board.

4. Loosen the four cap screws on top of the fence.

5. Skew the fence so it is parallel to the edge of the scrap piece. You may need to re-adjust the fence locking mechanisms to gain maximum adjustment.

6. While maintaining the skew, tighten the cap screws.

To shift the table:

1. On a scrap piece of wood, mark a line that is perpendicular to the front edge.

2. Cut halfway through the board on the line by pushing it into the blade.

3. Turn the bandsaw ***OFF*** and wait for the blade to stop.

4. Loosen the table mounting bolts. Shift the table to compensate for the blade lead, then retighten the table bolts.

5. Repeat **Steps 1–4** until the blade cuts straight.

Adjusting Wheel Brush

The lower wheel compartment contains two wheel brushes, one of which is shown in **Figure 88**. These brushes are designed to sweep sawdust off the wheel tire as the bandsaw is operating. In order to work properly each brush must make contact with the wheel.

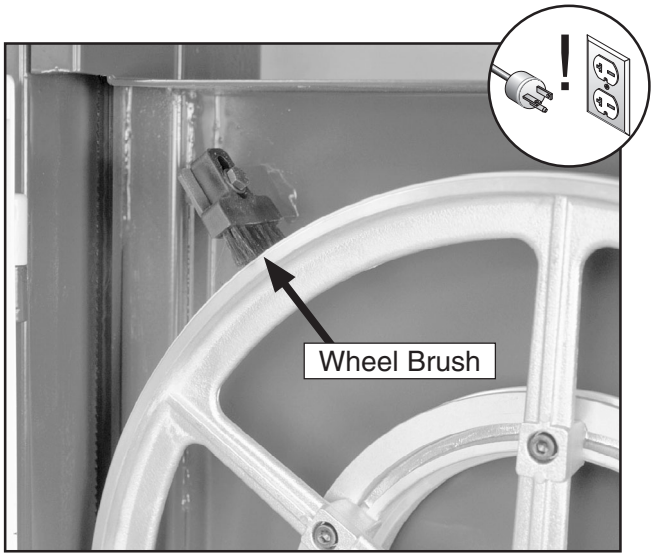


Figure 88. A wheel brush (one of two shown).

Tools Needed:	**Qty**
Wrench/Socket 10mm	2

To adjust the brushes:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the lower wheel cover.
3. Loosen the bolt/nut that secures each brush in place.
4. Adjust each brush so it makes good contact with the wheel or blade—without bending the bristles.
5. Tighten the bolt/nuts to secure each brush in place.

Adjusting Tension Lever

The quick release tension lever is setup correctly for use with the preinstalled 181" blade. However, if you install a different length blade, you will need to adjust the tension lever adjustment screw so the quick release tension lever works correctly.

Tools Needed:	**Qty**
Hex Wrench 5mm	1
Wrench 10mm	1

To adjust the tension lever:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the wheel covers, remove the bandsaw blade, then install the new one (refer to **Blade Changes** on **Page 49**).
3. Loosen the jam nut on the tension adjustment screw 7-10 turns.
4. Put the quick release tension lever in the down (engaged) position, then turn the blade tension handwheel until the blade tension matches the mark on the blade tension scale for the appropriate blade thickness.
5. Thread the tension adjustment screw (**Figure 89**) down until it contacts the wheel block plate, then back it off 1-2 turns.

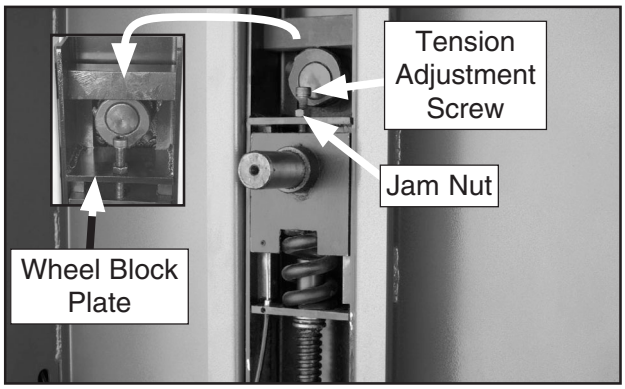


Figure 89. Example of quick release tension lever adjustment screw.

6. Tighten the jam nut.

Adjusting Guide Post Travel

The guide post assembly should remain parallel with the blade front-to-back and side-to-side along its length of travel. If it does not, follow these instructions to correctly adjust the guide post.

Tools Needed:
Machinist's Square 1
Small Ruler 1
Hex Wrench 4mm 1
Hex Wrench 5mm 1
Metal Shims ..... (As Needed)

To check/adjust the guide post parallel side-to-side with the blade:

1. DISCONNECT BANDSAW FROM POWER!

2. Tighten the blade to the tension that will be used during operation.

3. Loosen the guide post lock knob, raise the guide post and lock it in place, then place a machinist's square on the table next to the side of the blade as illustrated in **Figure 90**.

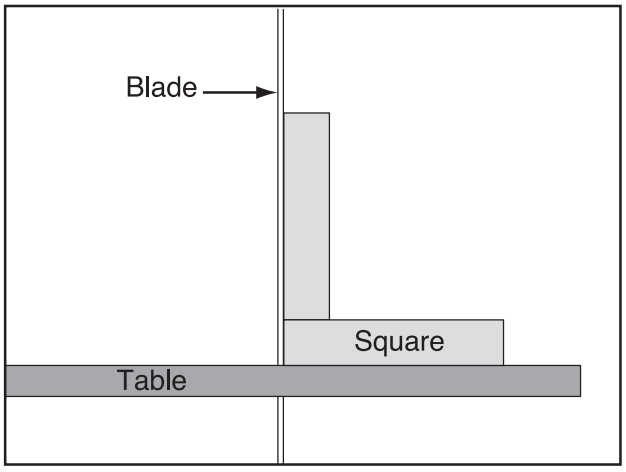


Figure 90. Squaring table to blade.

4. Adjust the table square with the blade using the table tilt knob, then secure it with the table tilt lock lever.

5. Loosen the guide post lock knob, lower the guide post to within 1" of the table top, then tighten the knob.

6. Place a machinist's square on the table next to the right hand side of the guide post, as shown in **Figure 91**.

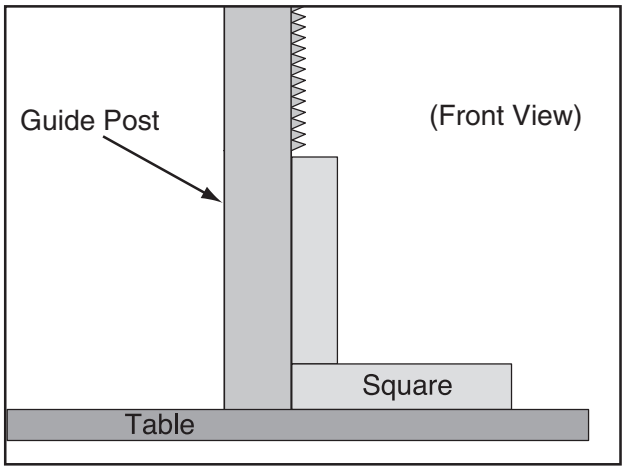


Figure 91. Example of checking guide post squareness.

—If there is no gap between the square and the guide post along its full length, no adjustments need to be made. Proceed to "To check/adjust if the guide post is parallel with the blade front-to-back."

—If there is a gap between the square and the guide post, the guide post is not parallel to the blade. Go to **Step 7**.

7. Loosen each of the four screws shown in **Figure 92** ¼ turn**.**

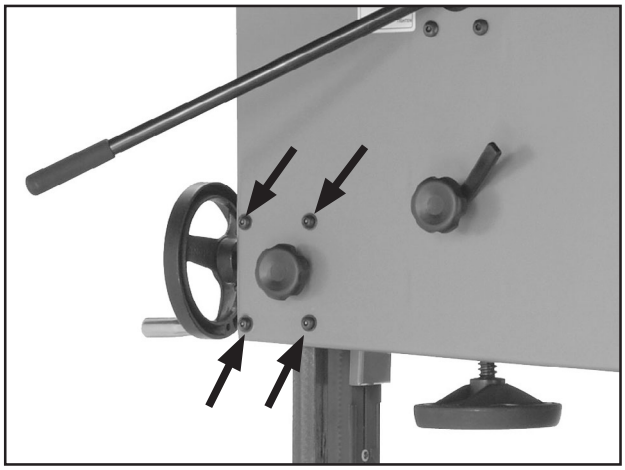


Figure 92. Guide post adjustment screws.

8. Gently tap the lower part of the guide post in the appropriate direction until there is no gap between the square and the guide post.

9. Tighten the screws shown in **Figure 92**.

To check/adjust the guide post parallel with the blade front-to-back:

1. DISCONNECT BANDSAW FROM POWER!

2. Loosen the guide post lock knob, lower the blade guide assembly to within 1" of the table top, then tighten the lock knob.

3. Remove the screws that secure the guide post guard and move it up and out of the way.

4. Measure the distance "A" between the top front face of the guide post rack and the back of the blade (see **Figure 93**).

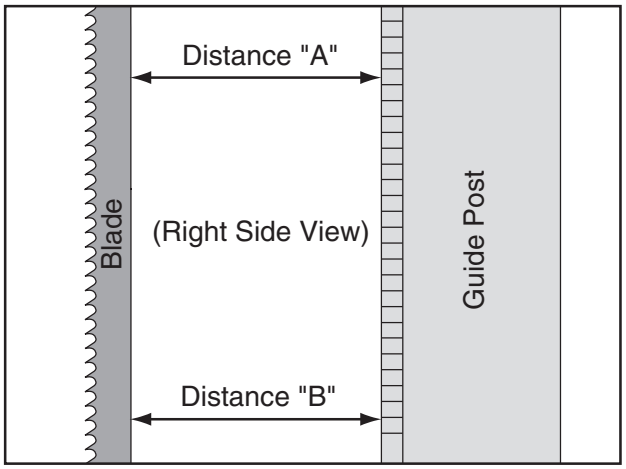


Figure 93. Example of measuring distance between rack and blade at top of guide post.

5. Measure the distance "B" between the bottom front face of the guide post rack and the back of the blade (see **Figure 93**).

   —If the measurements taken in **Steps 4–5** are equal, no adjustments need to be made. Go to **Step 9**.

   —If the measurements taken in **Steps 4–5** are not equal, go to **Step 6**.

6. Place the guide post guard on top of the guide post assembly so you can access the guide post bracket.

7. Loosen the four screws shown in **Figure 92** enough to fit metal shims between the frame and the guide post bracket (see **Figure 94**).

   —If the guide post to blade distance is greater at the bottom than at the top, place a shim between the bottom of the bracket and the frame (Shim "A"). This will tilt the bottom of the guide post toward the blade.

   —If the guide post to blade distance is less at the bottom than at the top, place a shim between the top of the bracket and the frame (Shim "B"). This will tilt the bottom of the guide post away from the blade.

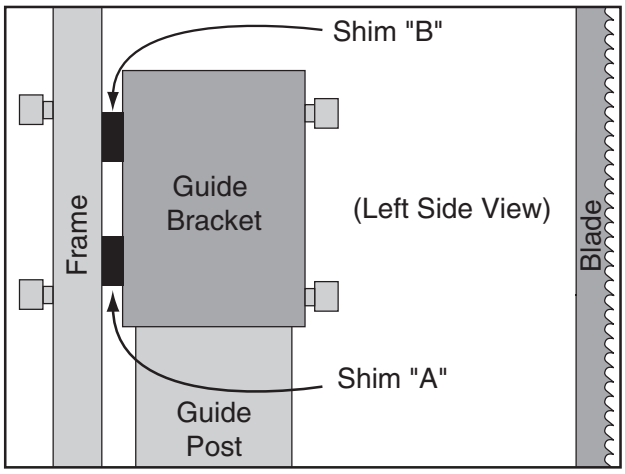


Figure 94. Location for placing shims.

8. Tighten the four screws shown in **Figure 92**, then repeat **Steps 4**–**5**.

   —If the measurements are equal, go to **Step 9**.

   —If the measurements are not equal, continue adding shims as needed until guide post rack to blade distance is the same at the top and bottom.

9. Reinstall the guide post guard with the screws removed in **Step 3**.

Aligning Wheels

Components and Hardware Needed: **Qty**
60" Long 2x4 1

Tools Needed:
Hex Wrenches 4 & 6 mm .....1 Ea
Wrench 13mm 1
Tape Measure..... 1
Coplanarity Gauge (see **Figure 95**) 1
Straightedge .....
Fine Ruler..... 1

Wheel alignment is one of the most critical factors for optimal performance from your bandsaw.

Heat, vibration, wandering, blade wear, tire wear and overall bandsaw wear are considerably decreased when the wheels are properly aligned or “coplanar.”

Coplanar wheels automatically track the blade by balancing it on the crown of the wheel. This is known as coplanar tracking.

Checking Coplanarity

1. Make the "Coplanarity Gauge" shown in **Figure 95**.

Note: *For best results, straighten the 2x4 with a jointer before cutting.*

2. DISCONNECT BANDSAW FROM POWER!

3. Remove the fence and open both wheel covers.

4. Adjust the blade guides away from the blade, loosen blade tension, remove the table insert and pin, then remove the blade.

5. Remove the table.

6. Reinstall the blade (**Page 49**), making sure the guide bearings and support bearings are away from the blade, then tighten your blade to the tension that it will be used during operation.

7. Place your coplanarity gauge up against both wheels in the positions shown in **Figure 96**.

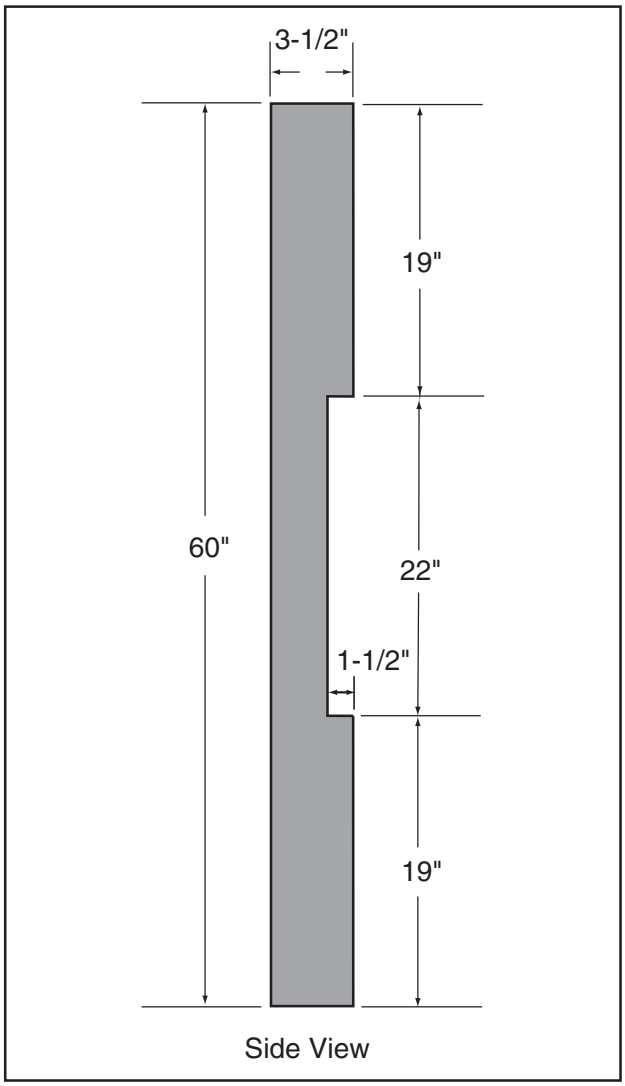


Figure 95. Dimensions of coplanarity gauge.

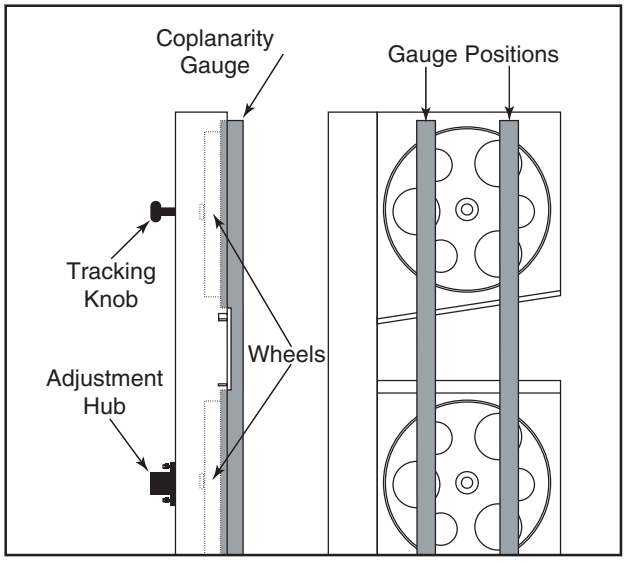


Figure 96. Checking for coplanarity.

—If the wheels are coplanar (**Figure 1**, **A**), the straightedge will evenly touch the top and bottom of both wheels.

—If the wheels are not coplanar (**Figure 1**, **B**), place the straightedge on the lower wheel first (ensuring that it touches both the top and bottom rim), then adjust the upper wheel tracking knob to make the upper wheel coplanar and parallel with the lower wheel.

—If the straightedge does not touch both wheels evenly, the lower wheel needs to be adjusted (**Figure 1, C**) or the upper wheel needs to be shimmed (**Figure 1, D**).

Shimming Upper Wheel

1. DISCONNECT BANDSAW FROM POWER!

2. Make sure the top wheel is adjusted parallel with the bottom wheel.

3. With a straightedge touching both points of the wheel that does not need to be adjusted, measure the distance away from the wheel that is out of adjustment (see **Figure 2**).

4. Remove the blade from the saw, then remove the wheel that needs to be shimmed.

5. Determine how many shim washers you need to compensate for the distance measured in **Step 3** and place them on the wheel shaft.

6. Replace the wheel, the original washers, the securing screw, and the blade.

7. Tighten the blade, then check the wheels with the coplanarity gauge. (Wheel coplanarity changes as the blade is tightened, so it is best to check the wheel alignment when the blade is tensioned as it would be for normal operations.)

8. When the wheels are coplanar, place a mark on each wheel where you held the straightedge. This assures repeated accuracy every time you adjust your wheels.

Note: *When wheels are properly coplanar, the blade may not be centered on the crown of the wheel, but it will be balanced.*

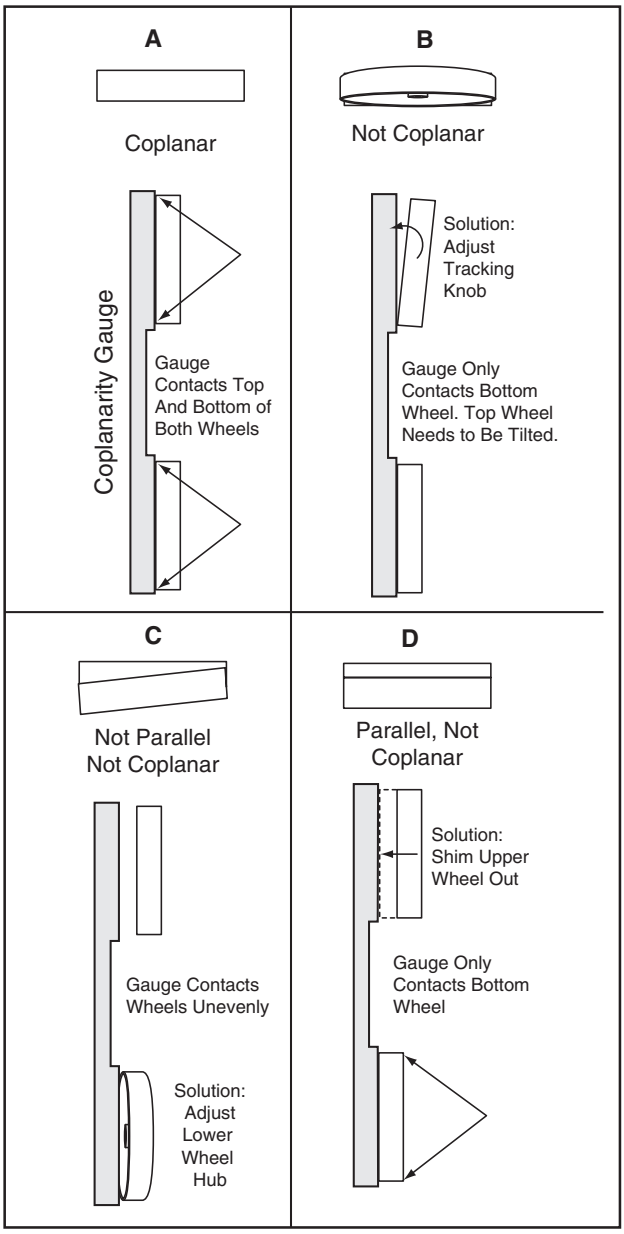


Figure 1. Coplanar diagram.

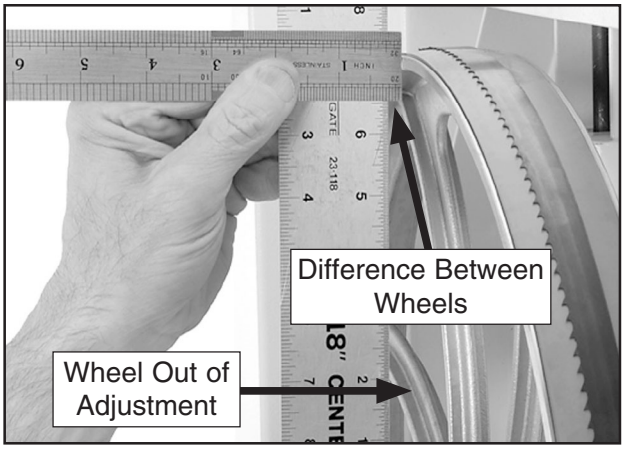


Figure 2. Determining distance needed to shim upper wheel.

Adjusting Lower Wheel

Only do this procedure if you cannot make the wheels coplanar with the tracking knob or by shimming the upper wheel. Make sure the upper wheel is adjusted as close as possible to being coplanar with the lower wheel before beginning. Do this procedure with the blade fully tensioned.

To adjust the lower wheel:

1. DISCONNECT BANDSAW FROM POWER!

2. Loosen the jam nuts on the lower wheel adjustment hub (see **Figure 97**).

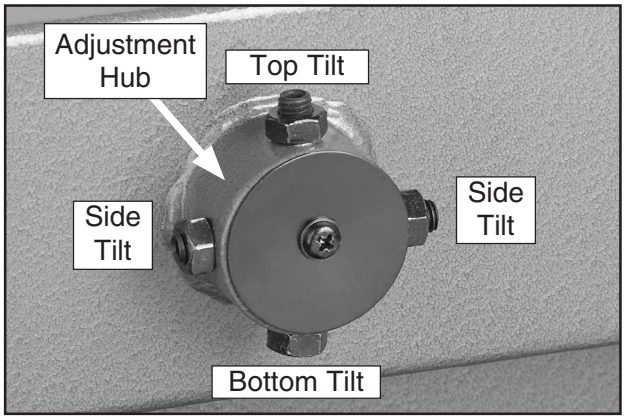


Figure 97. Lower wheel adjustment control.

3. Loosen one tilt adjustment set screw, then tighten the opposing set screw approximately an equal amount.

4. Check the wheels with the coplanarity gauge, then adjust the lower wheel at the hub as needed until it is parallel and coplanar with the top wheel.

5. Tighten the jam nuts to lock the tilt adjustment set screws in position.

SECTION 8: WIRING

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Study this section carefully. If there are differences between your machine and what is shown in this section, call Technical Support at (570) 546-9663 for assistance BEFORE making any changes to the wiring on your machine.

⚠WARNING
Wiring Safety Instructions

1. **SHOCK HAZARD.** Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!

2. **QUALIFIED ELECTRICIAN.** Due to the inherent hazards of electricity, only a qualified electrician should perform wiring tasks on this machine. If you are not a qualified electrician, get help from one before attempting any kind of wiring job.

3. **WIRE CONNECTIONS.** All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.

4. **WIRE/COMPONENT DAMAGE.** Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components before completing the task.

5. **MODIFICATIONS.** Using aftermarket parts or modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire.

6. **MOTOR WIRING.** The motor wiring shown in these diagrams is current at the time of printing, but it may not match your machine. Always use the wiring diagram inside the motor junction box.

7. **CAPACITORS.** Some capacitors store an electrical charge for up to five minutes after being disconnected from the power source. To avoid being shocked, wait at least this long before working on capacitors.

8. **CIRCUIT REQUIREMENTS.** You MUST follow the requirements on **Page 14** when connecting your machine to a power source.

9. **EXPERIENCING DIFFICULTIES.** If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at www.grizzly.com.

COLOR KEY

BLACK	Bk	BLUE	Bl	YELLOW	Yl	LIGHT BLUE	Lb
WHITE	Wt	BROWN	Br	YELLOW GREEN	Yg	BLUE WHITE	Bw
GREEN	Gn	GRAY	Gy	PURPLE	Pu	TURQUOISE	Tu
RED	Rd	ORANGE	Or	PINK	Pk		

G0514X Electrical Components

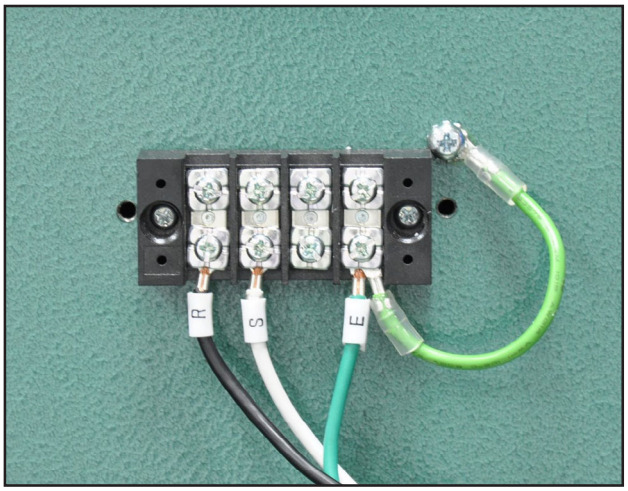


Figure 98. Power supply junction block.

Figure 100. Motor wiring.

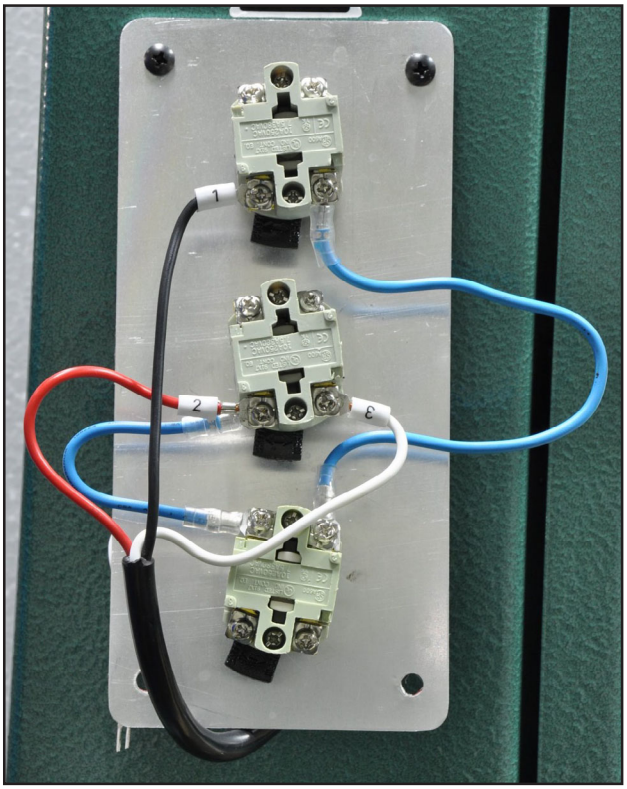
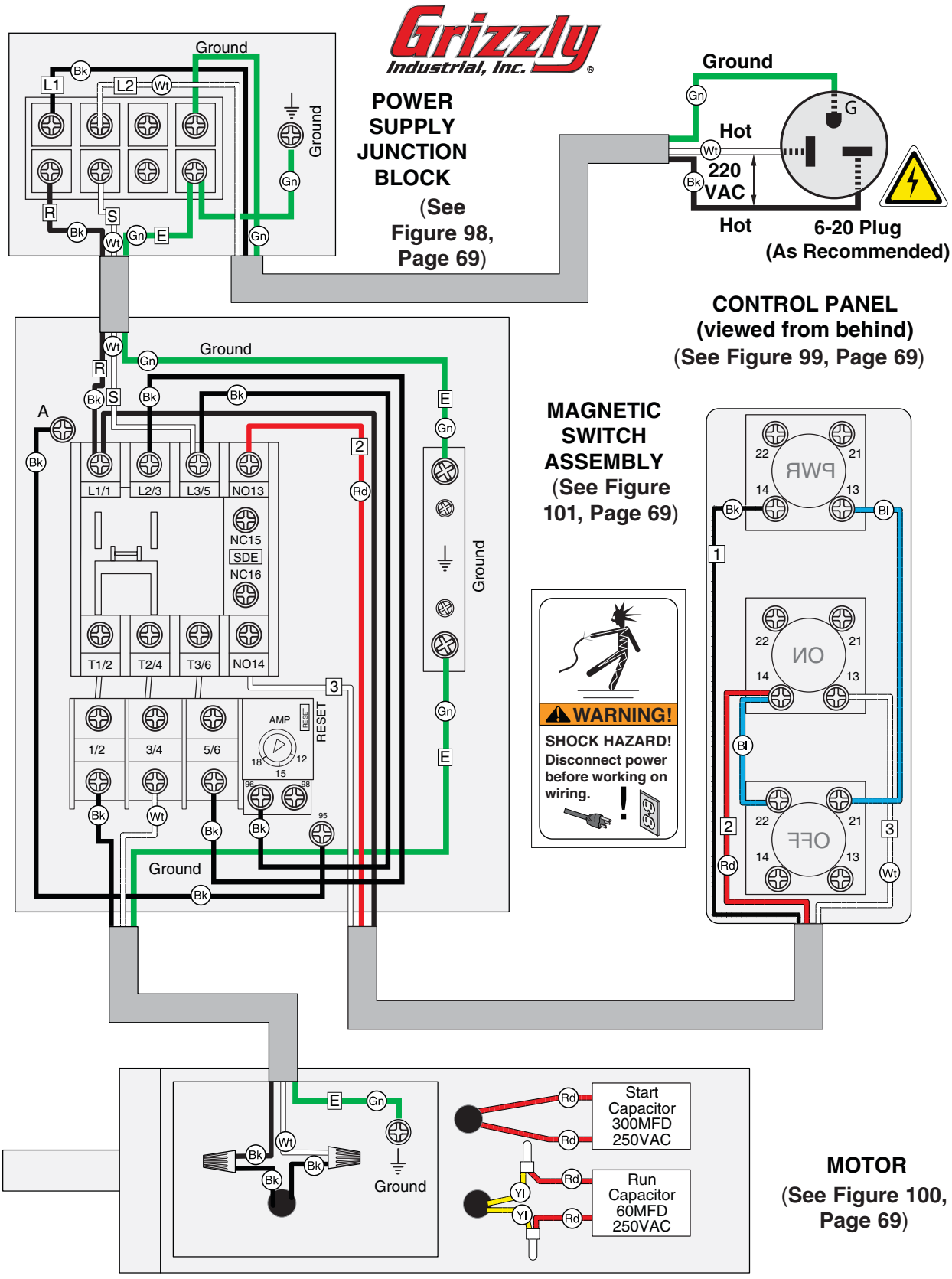


Figure 99. Control panel wiring.

Figure 101. Magnetic switch wiring.

G0514X Wiring Diagram



STOP ***READ ELECTRICAL SAFETY ON PAGE 68!***

G0514X2 Electrical Components

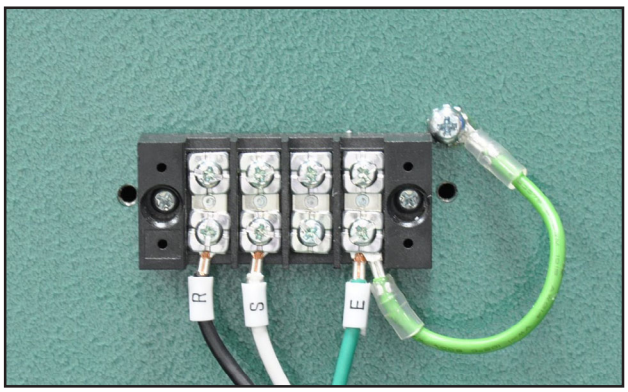


Figure 102. Power supply terminal block.

Figure 105. Motor wiring.

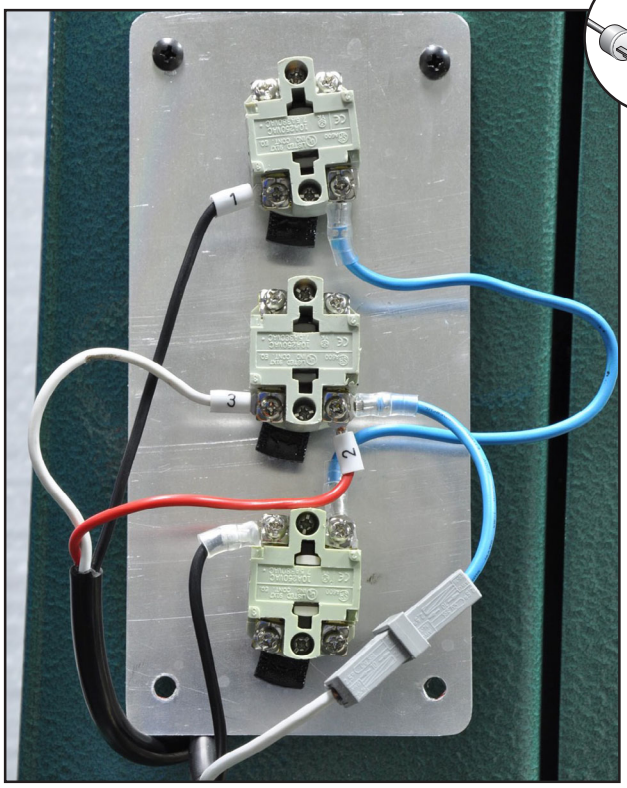


Figure 103. Control panel wiring.

Figure 106. Magnetic switch.

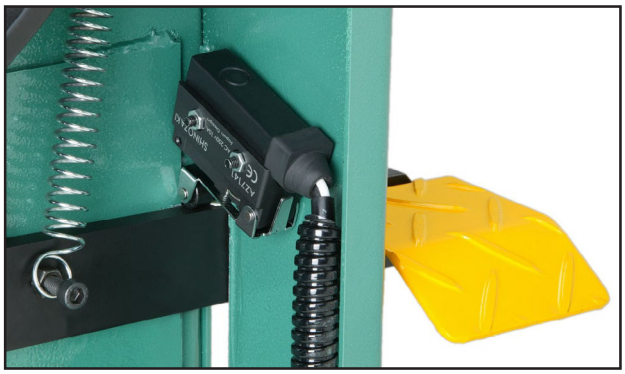
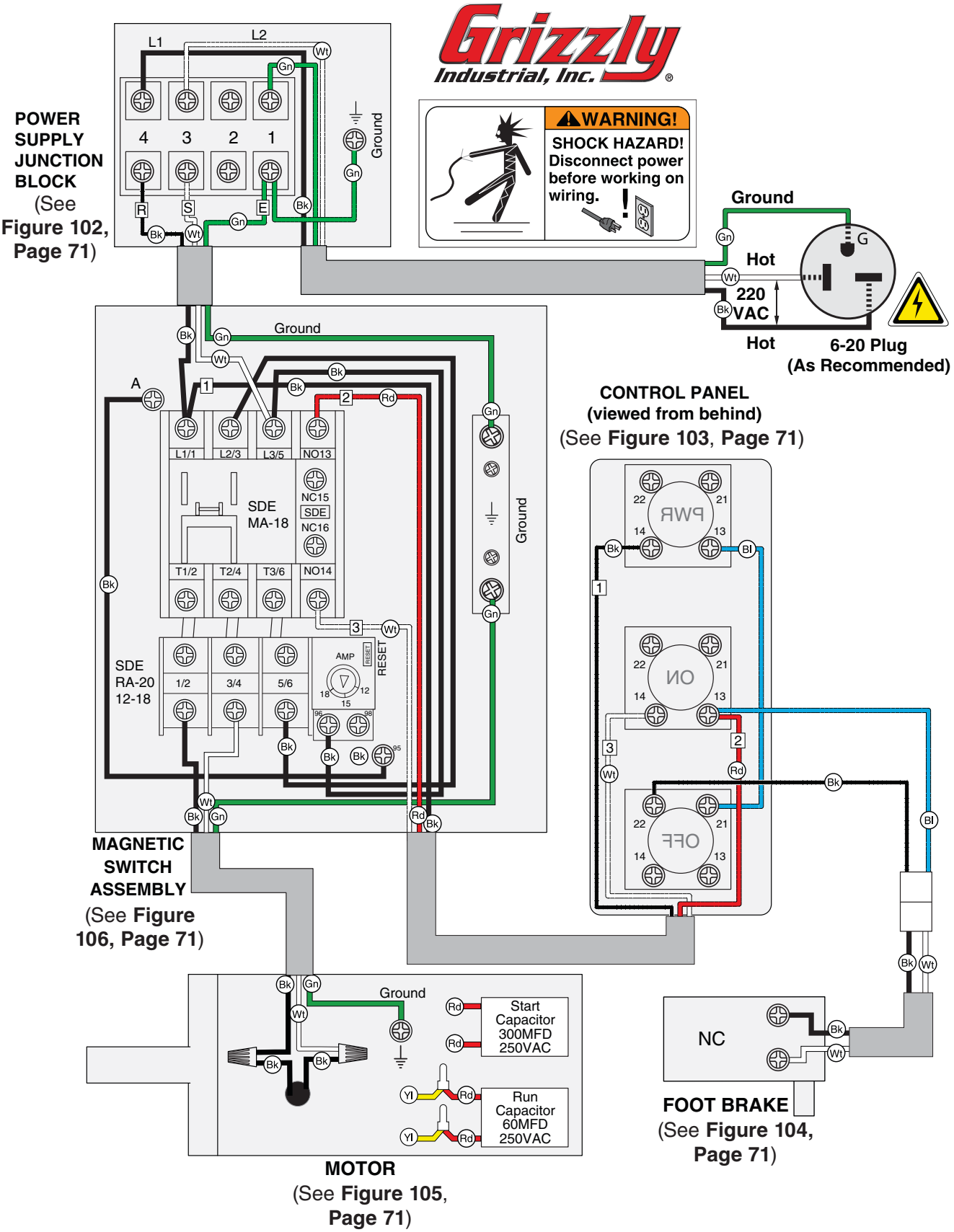


Figure 104. Foot brake switch.

G0514X2 Wiring Diagram



READ ELECTRICAL SAFETY ON PAGE 68!

G0514X3 Electrical Components

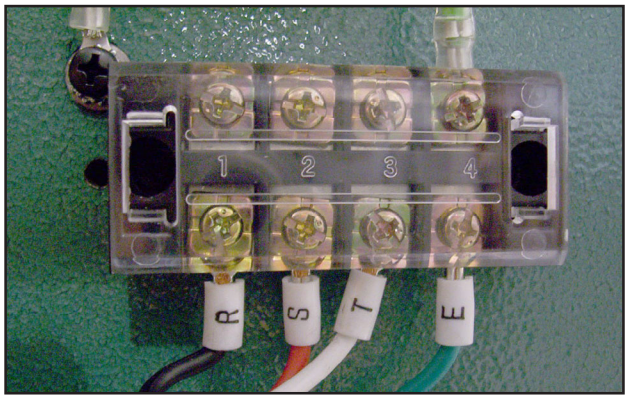


Figure 107. Power supply junction box.

Figure 110. Motor wiring.

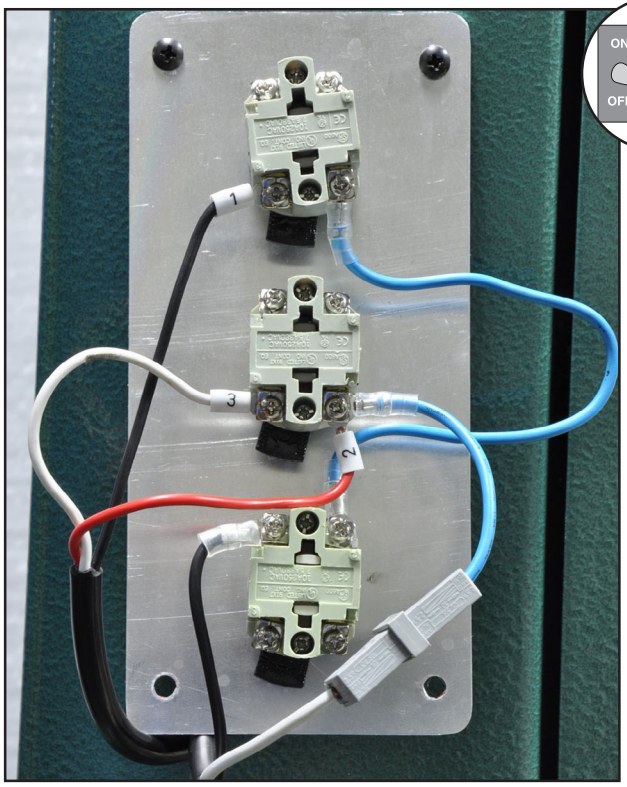


Figure 108. Control panel wiring.

Figure 111. Magnetic switch.

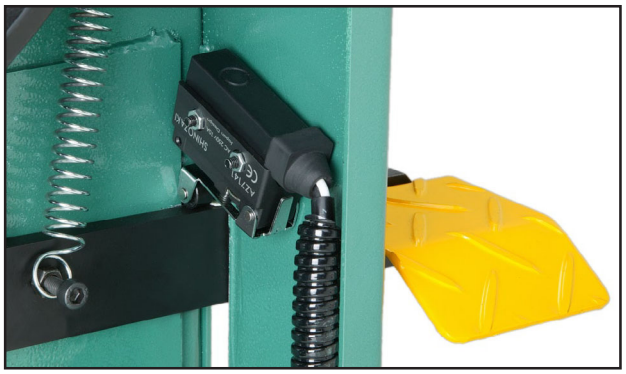
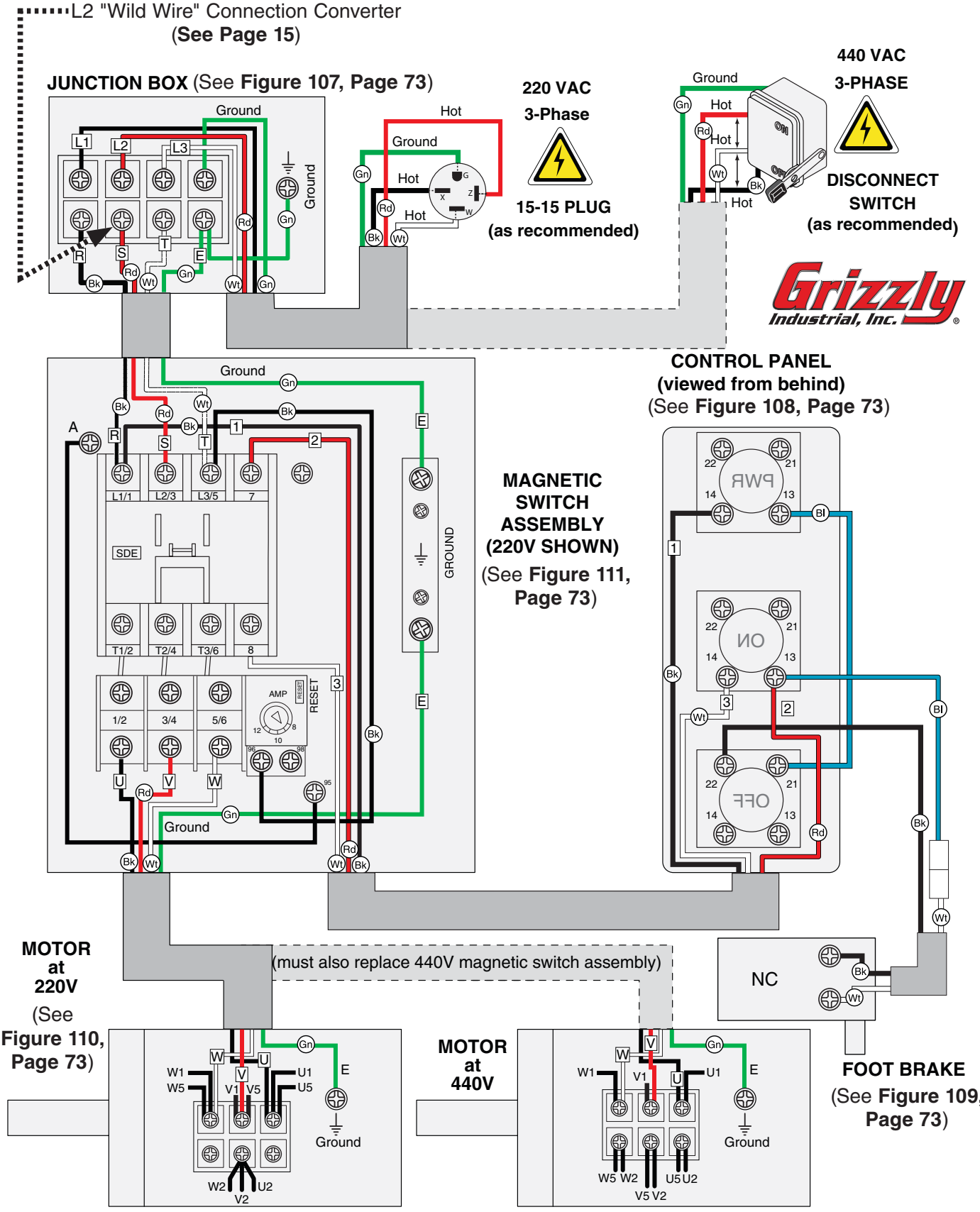


Figure 109. Foot brake switch.

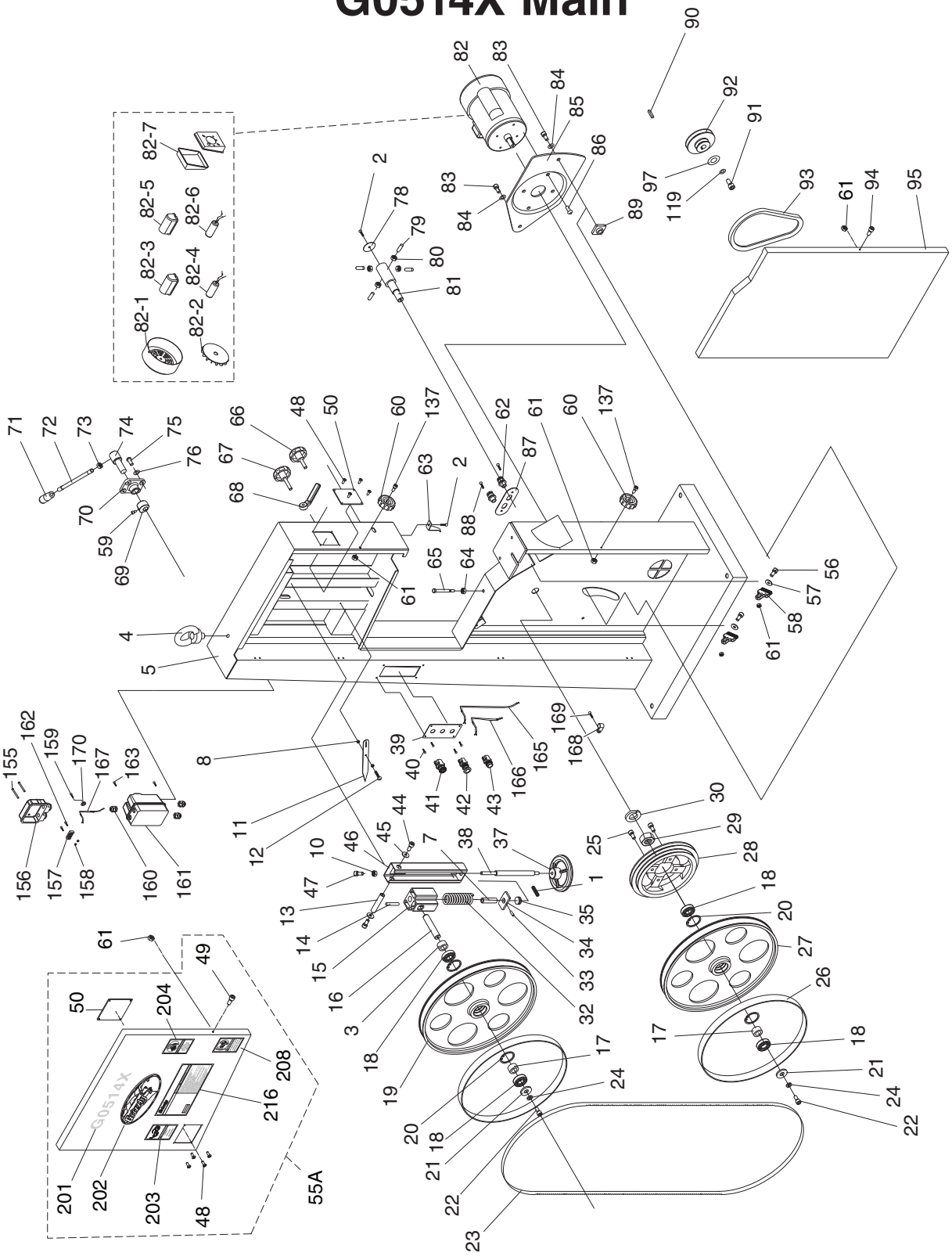
G0514X3 Wiring Diagram



STOP ***READ ELECTRICAL SAFETY ON PAGE 68!***

SECTION 9: PARTS

G0514X Main



G0514X Main Parts List

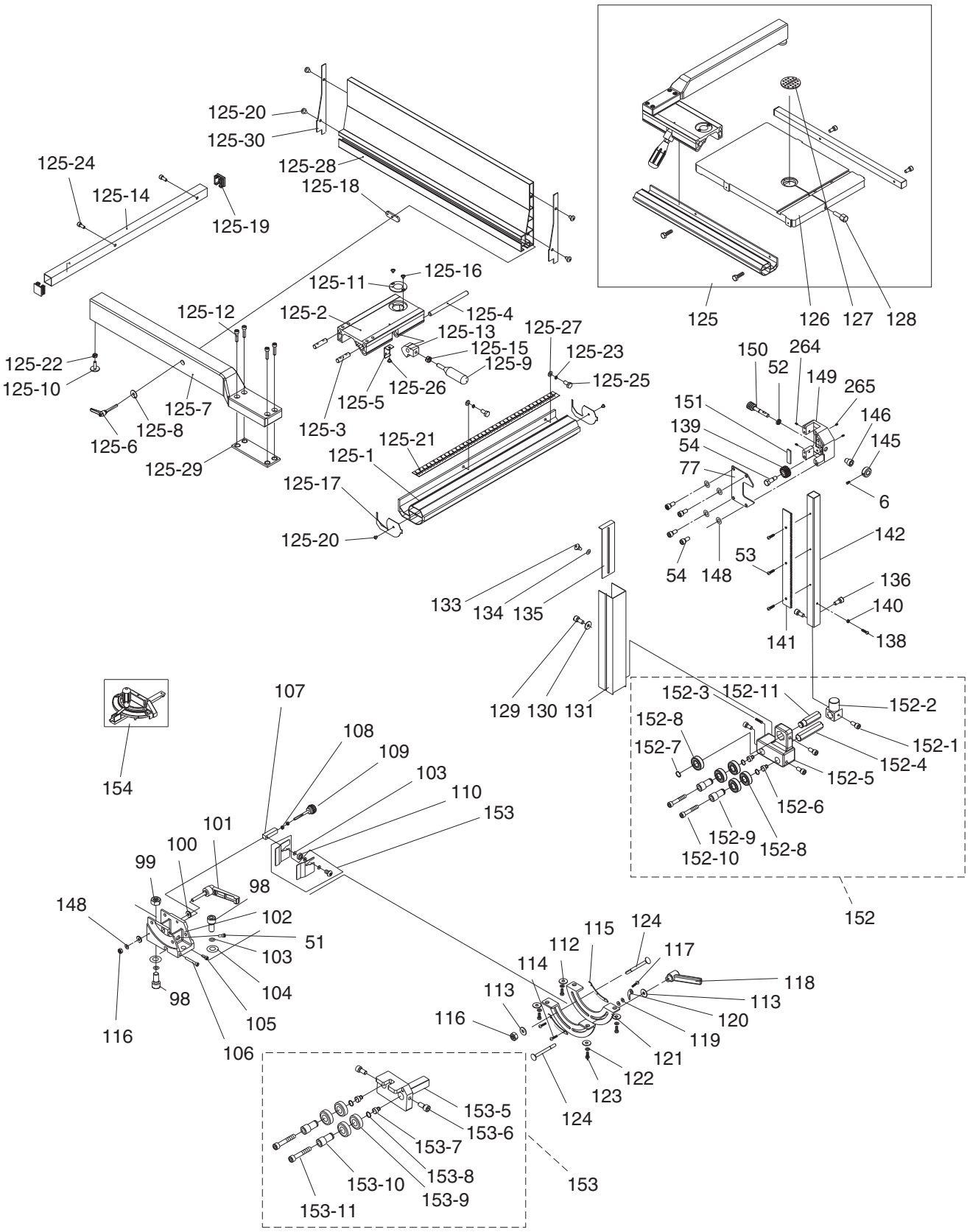
REF	PART #	DESCRIPTION
1	PSS01M	SET SCREW M6-1 X 10
2	PFS07M	FLANGE SCREW M5-.8 X 10
3	P0513X003	BUSHING
4	P0513004	LIFTING EYE BOLT M10-1.5
5	P0514005	MACHINE BODY
7	P0513X007	BUSHING
8	PW03M	FLAT WASHER 6MM
10	PN01M	HEX NUT M6-1
11	P0513011	POINTER
12	P0513012	SHOULDER SCREW M4-.7 X 5
13	P0513013	UPPER SHAFT
14	PRP10M	ROLL PIN 5 X 36
15	P0513015	UPPER WHEEL SHAFT HINGE
16	P0513016	UPPER WHEEL SHAFT
17	P0513017	BUSHING
18	P6204LLU	BALL BEARING 6204LLU
19	P0514X019	UPPER WHEEL 19"
20	PR25M	INT RETAINING RING 47MM
21	P0514X021	SPECIAL WASHER 8MM
22	PSB11M	CAP SCREW M8-1.25 X 16
23	P0514023	SAW BLADE 6TPI 143"
24	PLW04M	LOCK WASHER 8MM
25	PSB14M	CAP SCREW M8-1.25 X 20
26	P0514026	TIRE (BLACK)
27	P0514X027	LOWER WHEEL 19"
28	P0514X028	IDLE PULLEY
29	PN32	HEX NUT 1-14
30	PLW09	LOCK WASHER 1"
32	P0513032	COMPRESSION SPRING
33	PRP02M	ROLL PIN 3 X 16
34	P0513034	LOCATE BLOCK
35	P51201	THRUST BEARING 51201
37	P0513037	HANDWHEEL
38	P0513038	ADJUSTING BOLT
39	P0514X039	SWITCH PLATE
40	PHTEK15M	TAP SCREW M4 X 10
41	P0514X041	KEY SWITCH 22
42	P0514X042	START SWITCH 22
43	P0514X043	STOP SWITCH 22
44	PSB11M	CAP SCREW M8-1.25 X 16
45	P0513X045	FENDER WASHER 8MM
46	P0513046	UPPER WHEEL SLIDING BRACKET
47	PSB05M	CAP SCREW M6-1 X 50
48	P0514X048	RIVET 3.2 X 6
49	PSB04M	CAP SCREW M6-1 X 10
50	P0513050	CLEAR WINDOW
55A	P0514X055A	UPPER WHEEL COVER ASSY
56	PSB06M	CAP SCREW M6-1 X 25
57	PW03M	FLAT WASHER 6MM
58	P0513058	BRUSH
59	PSB06M	CAP SCREW M6-1 X 25
60	P0513060	STAR HANDLE

REF	PART #	DESCRIPTION
61	PLN03M	LOCK NUT 6MM
62	P0513062	STRAIN RELIEF 16MM
63	P0513063	HEIGHT POINTER
64	PN03M	HEX NUT M8-1.25
65	PB124M	HEX BOLT M8-1.25 X 90
66	P0513066	KNOB SCREW M10-1.5 X 20
67	P0513067	KNOB SCREW M10-1.5 X 55
68	P0513068	THREADED HANDLE 10MM
69	P0513069	CAM
70	P0513070	PILLOW BLOCK
71	P0513071	HANDLE M10-1.5
72	P0513072	LEVER ROD
73	PN09M	HEX NUT M12-1.75
74	P0513074	SHAFT
75	PSBS01M	BUTTON HD CAP SCR M8-1.25 X 20
76	PLW04M	LOCK WASHER 8MM
78	P0513078	COVER
79	PSS09M	SET SCREW M8-1.25 X 20
80	PN03M	HEX NUT M8-1.25
81	P0513081	LOWER WHEEL SHAFT
82	P0514X082	MOTOR 3HP 1-PHASE
82-1	P0514X082-1	FAN COVER
82-2	P0514X082-2	FAN
82-3	P0514X082-3	START CAPACITOR COVER
82-4	PC300C	S. CAPACITOR 300MFD/250VAC
82-5	P0514X082-5	CAPACITOR COVER
82-6	PC060A	R. CAPACITOR 60MFD/250VAC
82-7	P0514X082-7	ELECTRICAL BOX COVER
83	PB32M	HEX BOLT M10-1.5 X 25
84	PLW06M	LOCK WASHER 10MM
85	P0513085	MOTOR BRACKET
86	PSBS01M	BUTTON HD CAP SCR M8-1.25 X 20
87	P0513087	PLATE
88	PFS07M	FLANGE SCREW M5-.8 X 10
89	P0513089	PILLOW BLOCK
90	PK15M	KEY 5 X 5 X 35
91	PB81M	HEX BOLT M8-1.25 X 20 LH
92	P0514X092	MOTOR PULLEY
93	PVA42	V-BELT A-42 4L420
94	PSB04M	CAP SCREW M6-1 X 10
95	P0514X095	LOWER WHEEL COVER
97	P0513X045	FENDER WASHER 8MM
119	PW05M	FLAT WASHER 4MM
137	PSB02M	CAP SCREW M6-1 X 20
155	PFS09M	FLANGE SCREW M5-.8 X 50
156	P0514X156	TERMINAL BOX
157	P0514X157	TERMINAL HOUSE
158	PN04M	HEX NUT M4-.7
159	PS23M	PHLP HD SCR M5-.8 X 12
160	P0514X160	STRAIN RELIEF 20MM
161	P0514X161	MAG SWITCH 3HP/1PH/60HZ/220V
162	PS52M	PHLP HD SCR M4-.7 X 20

REF	PART #	DESCRIPTION
163	PFS07M	FLANGE SCREW M5-.8 X 10
165	P0514X165	SWITCH CORD
166	P0514X166	SWITCH CORD
167	P0514X167	CORD
168	P0514X168	CORD CLAMP
169	PFS12M	FLANGE SCREW M5-.8 X 12
170	PTLW02M	EXT TOOTH WASHER 5MM

REF	PART #	DESCRIPTION
201	P0514X201	G0514X MODEL # LABEL
202	G8589	GRIZZLY LOGO PLATE
203	PLABEL-11	SAFETY GLASSES LABEL
204	PLABEL-20	OPEN DOOR LABEL
208	PLABEL-19	HANDS/BLADE LABEL
216	P0514X216	G0514X MACHINE ID LABEL

G0514X Fence/Guides

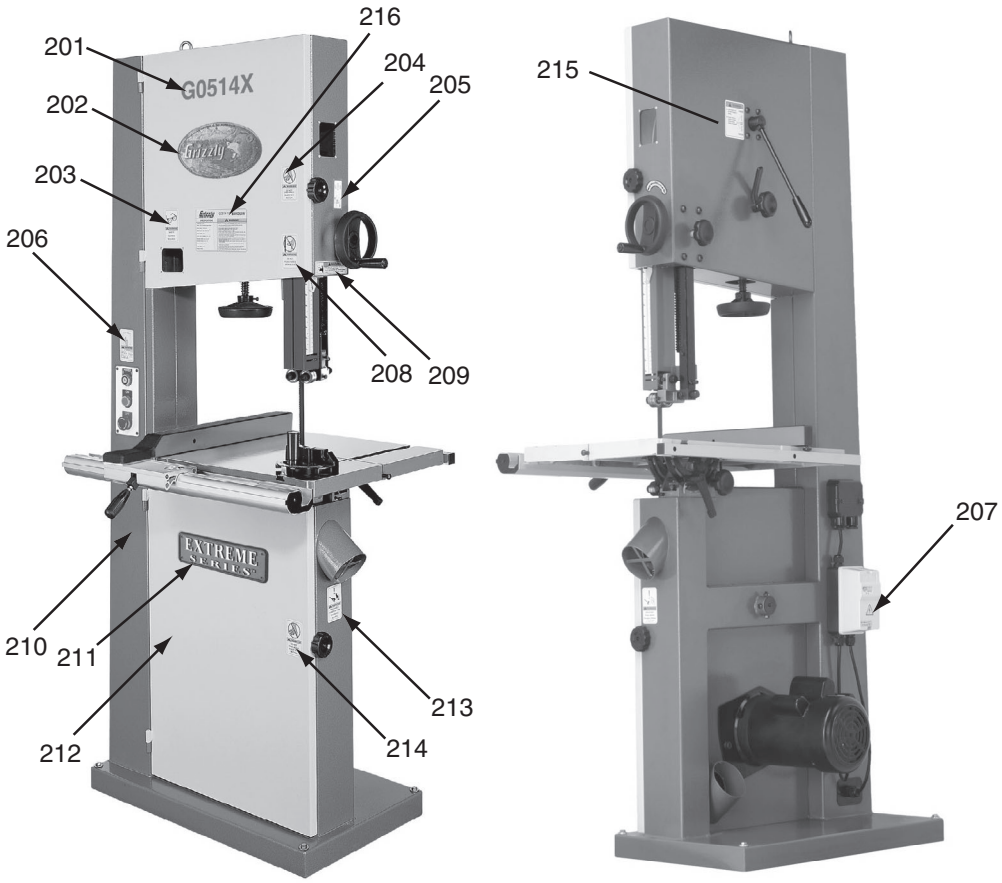


G0514X Fence/Guide Parts List

REF	PART #	DESCRIPTION
6	PSS07M	SET SCREW M5-.8 X 5
22	PSB11M	CAP SCREW M8-1.25 X 16
51	PSB02M	CAP SCREW M6-1 X 20
52	PN05M	HEX NUT M16-1.5
53	PFH31M	FLAT HD SCR M4-.7 X 8
54	P0514X054	FIXED BOLT
77	P0514X077	COVER
98	PSB84M	CAP SCREW M10-1.5 X 35
99	PN02M	HEX NUT M10-1.5
100	P0513100	SMALL GEAR
101	P0513X101	LOCK HANDLE
102	P0513102	TRUNNION SUPPORT BRACKET
103	PLW06M	LOCK WASHER 10MM
104	PW04M	FLAT WASHER 10MM
105	PB18M	HEX BOLT M6-1 X 20
106	PSB30M	CAP SCREW M6-1 X 45
107	P0513107	PILLOW BLOCK
108	PN01M	HEX NUT M6-1
109	P0513109	ADJUST BOLT M6
110	P6000	BALL BEARING 6000ZZ
112	PW01M	FLAT WASHER 8MM
113	PW01M	FLAT WASHER 8MM
114	PS17M	PHLP HD SCR M4-.7 X 6
115	P0513115	GEAR PLATE
116	PLN04M	LOCK NUT M8-1.25
117	PS17M	PHLP HD SCR M4-.7 X 6
118	P0513118	LOCK HANDLE
119	PW05M	FLAT WASHER 4MM
120	P0513120	POINTER
121	P0514X121	TRUNNION PLATE
122	PLW04M	LOCK WASHER 8MM
123	PB03M	HEX BOLT M8-1.25 X 16
124	PCB23M	CARRIAGE BOLT M8-1.25 X 80
125	P0514X125	FENCE SET ASSY
125-1	PH7589001	FIXED BASE 710MM
125-2	PH7587002	ADJUST BASE
125-3	PH7587003	FIXED SHAFT
125-4	PH7587004	SHAFT
125-5	PH7587005	SPRING PIECE
125-6	PH7528004	ADJUSTMENT HANDLE M8 X 44
125-7	PH7589007	SUPPORT TUBE 640MM
125-8	PW01M	FLAT WASHER 8MM
125-9	PH7587009	FENCE HANDLE M8-1.25 X 22
125-10	PH7587010	ADJUST SCREW
125-11	PH7587011	CONVEX
125-12	PSB07M	CAP SCREW M6-1 X 30
125-13	PH7587013	FIXED LUMP
125-14	PH7589014	SQUARE TUBE 710MM
125-15	PN03M	HEX NUT M8-1.25
125-16	PFS04M	FLANGE SCREW M4-.7 X 6
125-17	PH7587017	GUARD PIECE
125-18	PH7528002	MOVING PLATE
125-19	PH7587019	PLUGGED
125-20	PHTEK3M	TAP SCREW M3.5 X 8
125-21	PH7587021	SCALE 18-1/2"/47CM LONG

REF	PART #	DESCRIPTION
125-22	PN01M	HEX NUT M6-1
125-23	PLW03M	LOCK WASHER 6MM
125-24	PSB01M	CAP SCREW M6-1 X 16
125-25	PB08M	HEX BOLT M6-1 X 20
125-26	PFB11M	FLANGE BOLT M4-.7 X 10
125-27	PW03M	FLAT WASHER 6MM
125-28	PH7589028	RESAW FENCE (AL) 640MM
125-29	PH7587029	SPACER PLATE
125-30	PH7585030	FENCE PIECE
126	P0514X126	TABLE 26-3/4" X 19"
127	P0513X127	TABLE INSERT
128	P0513X128	TABLE PIN
129	PSB50M	CAP SCREW M5-.8 X 10
130	PW02M	FLAT WASHER 5MM
131	P0514X131	PROTECT COVER ASSY
133	P0513X140	SHOULDER SCREW
134	P0513X141	FIBER WASHER 13MM
135	P0513X142	SLIDING PLATE
136	PSB01M	CAP SCREW M6-1 X 16
138	PS38M	PHLP HD SCR M4-.7 X 10
139	P0513X122	GEAR
140	PN04M	HEX NUT M4-.7
141	P0513X144	RACK
142	P0513X145	UPPER GUIDE TUBE
143	P0513X146	HANDWHEEL
144	PSB02M	CAP SCREW M6-1 X 20
145	P0514X145	LOCATE BUSHING
146	P0513X130	BUSHING
148	PLW04M	LOCK WASHER 8MM
149	P0513X133	GUIDE BRACKET
150	P0513X134	WORM CYLINDER
151	P0513X135	FIXED PLATE
152	P0514X152	BLADE ADJ ASSY (UPPER)
152-1	PSB01M	CAP SCREW M6-1 X 16
152-2	P0513X150-2	UPPER GUIDE SUPPORT BLOCK
152-3	PSS01M	SET SCREW M6-1 X 10
152-4	P0513X150-4	ADJUST BAR
152-5	P0513X150-5	UPPER BLADE GUIDE SUPPORT
152-6	P0513X150-6	BIAS SHAFT
152-7	PR05M	EXT RETAINING RING 15MM
152-8	P6202ZZ	BALL BEARING 6202ZZ
152-9	P0513X150-9	HANDLE BUSHING
152-10	PSB48M	CAP SCREW M6-1 X 35
152-11	P0513X150-11	UPPER SPACING SLEEVE
153	P0514X153	BLADE ADJ. ASSY (LOWER)
153-5	P0513X151-5	LOWER BLADE GUIDE SUPPORT
153-6	PSB01M	CAP SCREW M6-1 X 16
153-7	P0513X151-7	BIAS SHAFT
153-8	PR05M	EXT RETAINING RING 15MM
153-9	P6202ZZ	BALL BEARING 6202ZZ
153-10	P0513X151-10	HANDLE BUSHING
153-11	PSB48M	CAP SCREW M6-1 X 35
154	P0513X152	MITER GAUGE ASSY
264	P0514X264	SPECIAL PLASTIC SET SCREW
265	P0514X264	SPECIAL PLASTIC SET SCREW

G0514X Labels



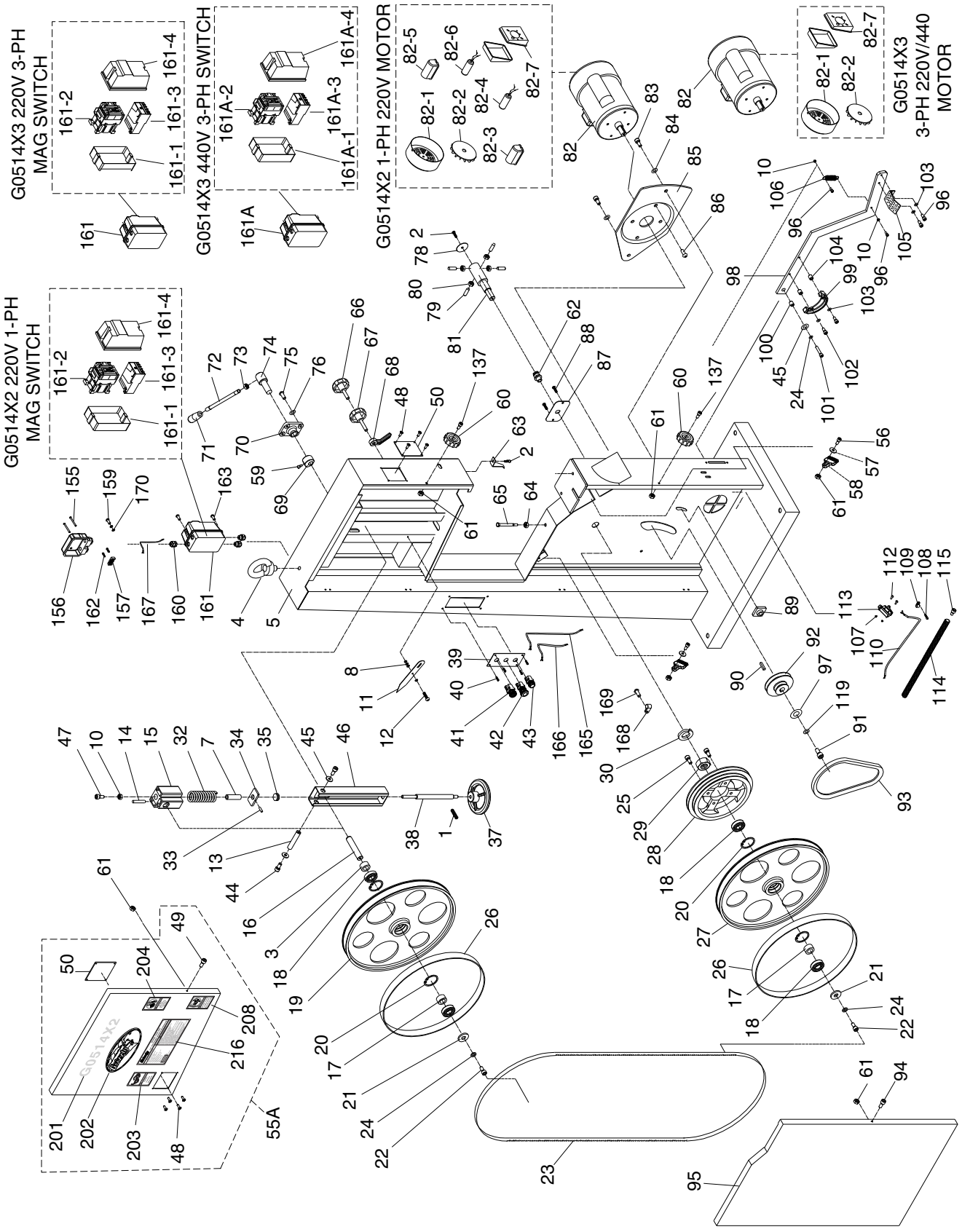
REF	PART #	DESCRIPTION
201	P0514X201	G0514X MODEL # LABEL
202	G8589	GRIZZLY LOGO PLATE
203	PLABEL-11	SAFETY GLASSES LABEL
204	PLABEL-20	OPEN DOOR LABEL
205	P0513X205	GUARD ADJ LABEL
206	PLABEL-12	READ MANUAL LABEL
207	PLABEL-14	ELECTRICITY LABEL
208	PLABEL-19	HANDS/BLADE LABEL

REF	PART #	DESCRIPTION
209	PLABEL-21	BS MOVING/ADJUST LABEL
210	PPAINT-1	GRIZZLY GREEN TOUCH-UP PAINT
211	P0513X210	EXTREME SERIES PLATE
212	PPAINT-11	PUTTY TOUCH-UP PAINT
213	PLABEL-18	DISCONNECT POWER LABEL
214	PLABEL-20	OPEN DOOR LABEL
215	P0513X214	TENSION ADJ LABEL
216	P0514X216	G0514X MACHINE ID LABEL

⚠WARNING

Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine MUST maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, REPLACE that label before using the machine again. Contact Grizzly at (800) 523-4777 or www.grizzly.com to order new labels.

G0514X2/G0514X3 Main


G0514X3 220V 3-PH MAG SWITCH
G0514X3 440V 3-PH SWITCH
G0514X2 1-PH 220V MOTOR
G0514X3 3-PH 220V/440 MOTOR
G0514X2 220V 1-PH MAG SWITCH

G0514X2/G0514X3 Main Parts List

REF	PART #	DESCRIPTION
1	PSS01M	SET SCREW M6-1 X 10
2	PFS07M	FLANGE SCREW M5-.8 X 10
3	P0513X003	BUSHING
4	P0513004	LIFTING EYE BOLT M10-1.5
5	P0514X2005	MACHINE BODY
7	P0513X007	BUSHING
8	PW03M	FLAT WASHER 6MM
10	PN01M	HEX NUT M6-1
11	P0513011	POINTER
12	P0513012	SHOULDER SCREW M4-.7 X 5
13	P0513013	UPPER SHAFT
14	PRP10M	ROLL PIN 5 X 36
15	P0513015	UPPER WHEEL SHAFT HINGE
16	P0513016	UPPER WHEEL SHAFT
17	P0513017	BUSHING
18	P6204LLU	BALL BEARING 6204LLU
19	P0514X019	UPPER WHEEL 19"
20	PR25M	INT RETAINING RING 47MM
21	P0514X021	SPECIAL WASHER 8MM
22	PSB11M	CAP SCREW M8-1.25 X 16
23	P0514023	SAW BLADE 6TPI 143"
24	PLW04M	LOCK WASHER 8MM
25	PSB14M	CAP SCREW M8-1.25 X 20
26	P0514X026	TIRE
27	P0514X027	LOWER WHEEL 19"
28	P0514X2028	IDLE PULLEY
29	PN32	HEX NUT 1-14
30	PLW09	LOCK WASHER 1"
32	P0513032	COMPRESSION SPRING
33	PRP02M	ROLL PIN 3 X 16
34	P0513034	LOCATE BLOCK
35	P51201	THRUST BEARING 51201
37	P0513037	HANDWHEEL
38	P0513038	ADJUSTING BOLT
39	P0514X039	SWITCH PLATE
40	PHTEK15M	TAP SCREW M4 X 10
41	P0514X041	KEY SWITCH
42	P0514X042	START SWITCH 22
43	P0514X043	STOP SWITCH 22
44	PSB11M	CAP SCREW M8-1.25 X 16
45	P0513X045	FENDER WASHER 8MM
46	P0513046	UPPER WHEEL SLIDING BRACKET
47	PSB05M	CAP SCREW M6-1 X 50
48	P0514X048	RIVET 3.2 X 6
49	PSB04M	CAP SCREW M6-1 X 10
50	P0513050	CLEAR WINDOW
55A	P0514X2055A	UPPER WHEEL COVER ASSY
56	PSB06M	CAP SCREW M6-1 X 25
57	PW03M	FLAT WASHER 6MM
58	P0513058	BRUSH
59	PSB06M	CAP SCREW M6-1 X 25
60	P0513060	STAR HANDLE
61	PLN03M	LOCK NUT 6MM
62	P0513062	STRAIN RELIEF 16MM
63	P0513063	HEIGHT POINTER
64	PN03M	HEX NUT M8-1.25

REF	PART #	DESCRIPTION
65	PB124M	HEX BOLT M8-1.25 X 90
66	P0513066	KNOB SCREW M10-1.5 X 20
67	P0513067	KNOB SCREW M10-1.5 X 55
68	P0513068	THREADED HANDLE 10MM
69	P0513069	CAM
70	P0513070	PILLOW BLOCK
71	P0513071	HANDLE M10-1.5
72	P0513072	LEVER ROD
73	PN09M	HEX NUT M12-1.75
74	P0513074	SHAFT
75	PSBS01M	BUTTON HD CAP SCR M8-1.25 X 20
76	PLW04M	LOCK WASHER 8MM
78	P0513078	COVER
79	PSS09M	SET SCREW M8-1.25 X 20
80	PN03M	HEX NUT M8-1.25
81	P0514X2081	LOWER WHEEL SHAFT
83	PB32M	HEX BOLT M10-1.5 X 25
84	PLW06M	LOCK WASHER 10MM
85	P0513085	MOTOR BRACKET
86	PSBS01M	BUTTON HD CAP SCR M8-1.25 X 20
87	P0513087	PLATE
88	PFS07M	FLANGE SCREW M5-.8 X 10
89	P0513089	PILLOW BLOCK
90	PK15M	KEY 5 X 5 X 35
91	PB81M	HEX BOLT M8-1.25 X 20 LH
92	P0514X092	MOTOR PULLEY
93	PVA42	V-BELT A-42 4L420
94	PSB04M	CAP SCREW M6-1 X 10
95	P0514X095	LOWER WHEEL COVER
96	PSB01M	CAP SCREW M6-1 X 16
97	P0513X045	FENDER WASHER 8MM
98	P0514X2098	BRAKE LEVER
99	P0514X2099	BRAKE PAD
100	P0514X2100	BUSHING
101	PSB31M	CAP SCREW M8-1.25 X 25
102	PSB06M	CAP SCREW M6-1 X 25
103	PLW03M	LOCK WASHER 6MM
104	P0514X2104	BUSHING
105	P0514X2105	BRAKE STEP PLATE
106	P0514X2106	EXTENSION SPRING
107	PN04M	HEX NUT M4-.7
108	PHTEK4M	TAP SCREW M4 X 8
109	P0514X2109	CORD CLAMP 5/8"
110	P0514X2110	BRAKE LEVER CORD
112	PS51M	PHLP HD SCR M4-.7 X 30
113	P0514X2113	LIMIT SWITCH KL7141
114	P0514X2114	PROTECT TUBE 1/2" X 43-5/16"
115	P0514X2115	CORD BUSHING
119	PLW02M	LOCK WASHER 4MM
137	PSB02M	CAP SCREW M6-1 X 20
155	PFS09M	FLANGE SCREW M5-.8 X 50
156	P0514X156	TERMINAL BOX
157	P0514X157	TERMINAL HOUSE
159	PS23M	PHLP HD SCR M5-.8 X 12
160	P0514X160	STRAIN RELIEF 20MM
162	PS52M	PHLP HD SCR M4-.7 X 20

REF	PART #	DESCRIPTION
163	PFS07M	FLANGE SCREW M5-.8 X 10
165	P0514X165	SWITCH CORD
166	P0514X166	SWITCH CORD
167	P0514X167	CORD
168	P0514X168	CORD CLAMP
169	PFS12M	FLANGE SCREW M5-.8 X 12
170	PTLW02M	EXT TOOTH WASHER 5MM

REF	PART #	DESCRIPTION
201	P0514X2201	G0514X2 MODEL # LABEL
202	G8589	GRIZZLY LOGO PLATE
203	PLABEL-11	SAFETY GLASSES LABEL
204	PLABEL-20	OPEN DOOR LABEL
208	PLABEL-19	HANDS/BLADE LABEL
216	P0514X2216	G0514X2 MACHINE ID LABEL

G0514X2 3HP 1-PH, 220V MOTOR

82	P0514X2082	MOTOR 3HP 1-PHASE
82-1	P0514X2082-1	FAN COVER
82-2	P0514X2082-2	FAN
82-3	P0514X2082-3	START CAPACITOR COVER
82-4	PC300C	S. CAPACITOR 300MFD/250VAC
82-5	P0514X2082-5	RUN CAPACITOR COVER
82-6	PC060A	R. CAPACITOR 60MFD/250VAC
82-7	P0514X2082-7	ELECTRICAL BOX COVER

G0514X3 3HP 3-PH, 220V-440 MOTOR

82	P0514X3082	MOTOR 3HP 3-PHASE
82-1	P0514X3082-1	FAN COVER
82-2	P0514X3082-2	FAN
82-7	P0514X3082-7	ELECTRICAL BOX COVER

G0514X2 3HP 1-PH, 220V MAG SWITCH

161	P0514X161	MAG SWITCH 3HP/220V
161-1	P0514X2161-1	MAG SWITCH BACK COVER
161-2	P0514X2161-2	CONTACTOR SDE MA-18
161-3	P0514X2161-3	THERMAL RELAY
161-4	P0514X2161-4	SWITCH FRONT COVER

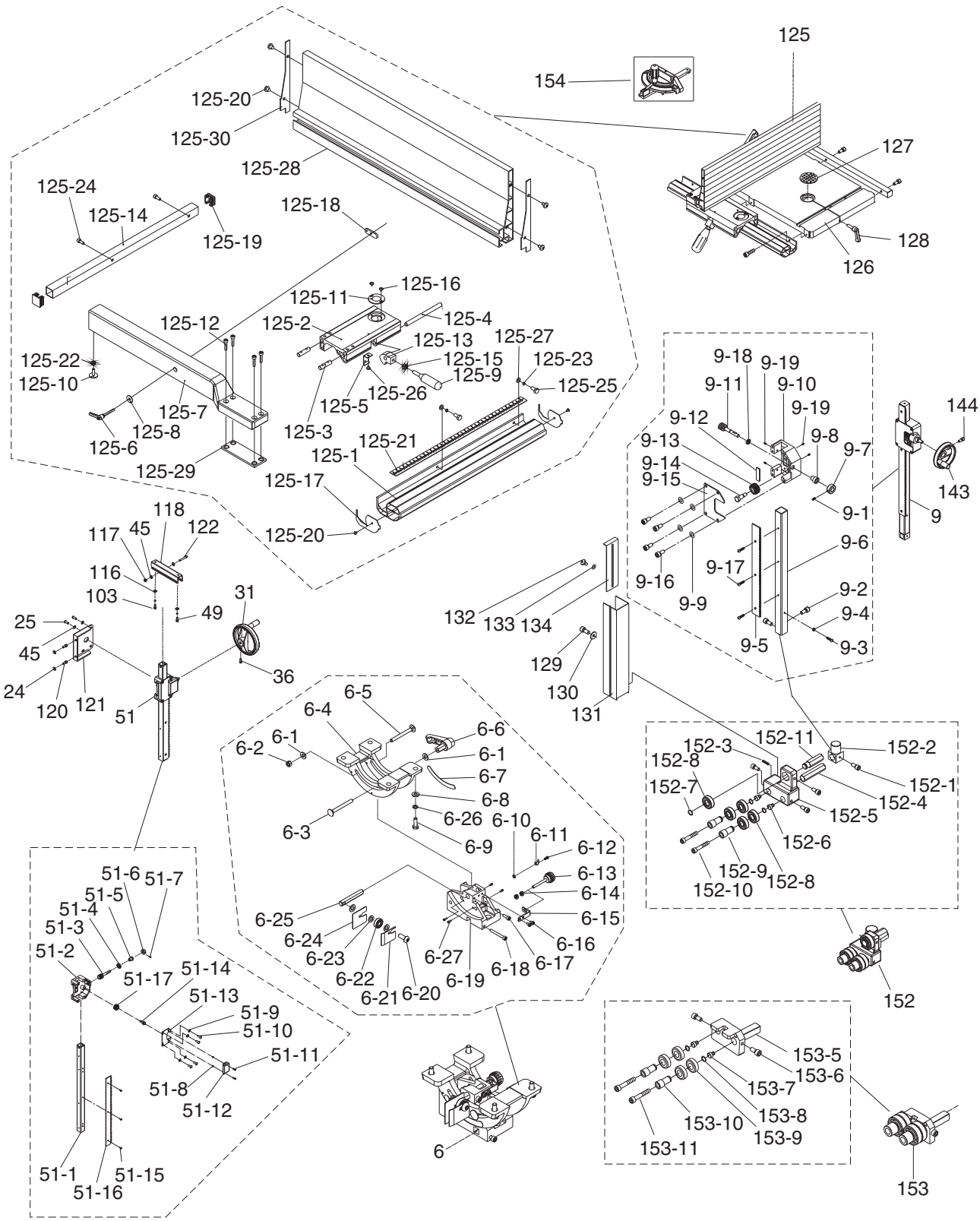
G0514X3 3HP 3-PH, 220V MAG SWITCH

161	P0514X3161	MAG SWITCH 3HP/220V
161-1	P0514X3161-1	SWITCH BACK COVER 220V
161-2	P0514X3161-2	CONTACTOR 220V
161-3	P0514X3161-3	THERMAL RELAY 220V
161-4	P0514X3161-4	SWITCH FRONT COVER 220V

G0514X3 3HP 3-PH, 440V MAG SWITCH

161A	P0514X3161A	MAG SWITCH 3HP/440V
161A-1	P0514X3161A-1	SWITCH BACK COVER 440V
161A-2	P0514X3161A-2	CONTACTOR 440V
161A-3	P0514X3161A-3	THERMAL RELAY 440V
161A-4	P0514X3161A-4	SWITCH FRONT COVER 440V

G0514X2/G0514X3 Fence/Guides



G0514X2/G0514X3 Parts List

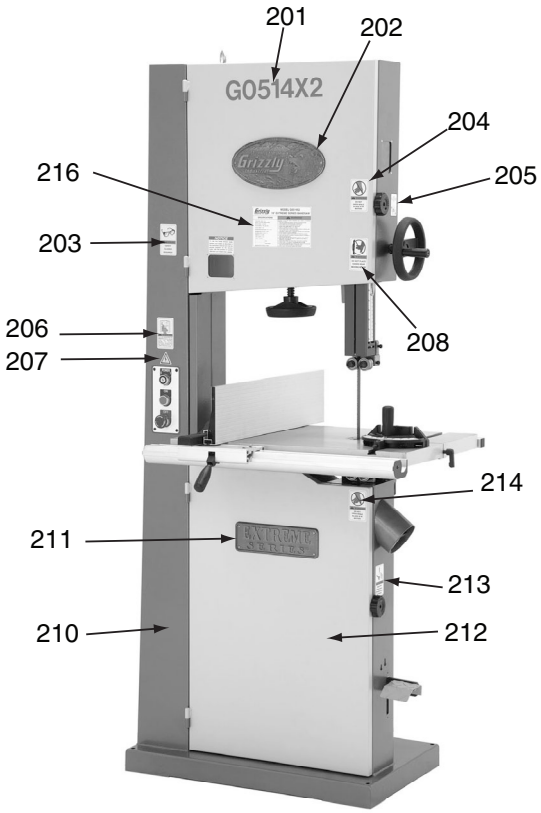
REF	PART #	DESCRIPTION
6	P0514X2006	CAST IRON TRUNNION ASSEMBLY
6-1	PW01M	FLAT WASHER 8MM
6-2	PLN04M	LOCK NUT M8-1.25
6-3	PCB10M	CARRIAGE BOLT M8-1.25 X 85
6-4	P0513X2162	UPPER TRUNNION
6-5	PCB23M	CARRIAGE BOLT M8-1.25 X 80
6-6	P0513118	LOCK HANDLE M8-1.25
6-7	P0513X2165	ANGLE LABEL
6-8	PW01M	FLAT WASHER 8MM
6-9	PB07M	HEX BOLT M8-1.25 X 25
6-10	PW05M	FLAT WASHER 4MM
6-11	P0513120	POINTER
6-12	PS17M	PHLP HD SCR M4-.7 X 6
6-13	P0513109	ADJUST BOLT M6-1
6-14	PN01M	HEX NUT M6-1
6-15	P0513X2174	ADJUST PLATE
6-16	PFH01M	FLAT HD SCR M5-.8 X 15
6-17	PSB01M	CAP SCREW M6-1 X 16
6-18	PSB37M	CAP SCREW M6-1 X 50
6-19	P0513X2178	TRUNNION SUPPORT BRACKET
6-20	PSBS19M	BUTTON HD CAP SCR M10-1.5 X 30
6-21	P0513X2181	RIGHT COVER
6-22	P6000	BALL BEARING 6000ZZ
6-23	PW04M	FLAT WASHER 10MM
6-24	P0513X2184	LEFT COVER
6-25	P0513X2185	ADJUST BLOCK
6-26	PLW04M	LOCK WASHER 8MM
6-27	PSB97M	CAP SCREW M5-.8 X 6
9	P0514X2009	UPPER GUIDE BRACKET ASSY
9-1	PSS07M	SET SCREW M5-.8 X 5
9-2	PSB01M	CAP SCREW M6-1 X 16
9-3	PS38M	PHLP HD SCR M4-.7 X 10
9-4	PN04M	HEX NUT M4-.7
9-5	P0514X2009-5	RACK
9-6	P0513X146	UPPER GUIDE TUBE
9-7	P0514X145	LOCATE BUSHING
9-8	P0513X130	BUSHING
9-9	PLW04M	LOCK WASHER 8MM
9-10	P0513X133	GUIDE BRACKET
9-11	P0513X134	WORM CYLINDER
9-12	P0513X135	FIXED PLATE
9-13	P0513X122	GEAR
9-14	P0514X096	FIXED BOLT
9-15	P0514X077	COVER
9-16	PSB11M	CAP SCREW M8-1.25 X 16
9-17	PFH31M	FLAT HD SCR M4-.7 X 8
9-18	PN05M	HEX NUT M16-1.5
9-19	P0514X2009-19	SPECIAL PLASTIC SET SCREW
24	PLW04M	LOCK WASHER 8MM
25	PSB14M	CAP SCREW M8-1.25 X 20
31	P0514X2031	TABLE TILT HANDWHEEL
36	PSB06M	CAP SCREW M6-1 X 25
45	PWF08M	FENDER WASHER 8MM
49	PSB04M	CAP SCREW M6-1 X 10
51	P0514X2051	TABLE TILT BRACKET ASSEMBLY
51-1	P0566243	SQUARE TUBE
51-2	P0566213	GUIDE BRACKET

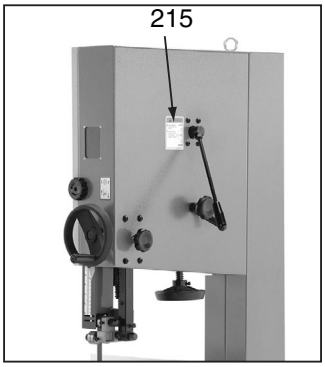
REF	PART #	DESCRIPTION
51-3	P0566225	WORM CYLINDER
51-4	PN05M	HEX NUT M16-1.5
51-5	P0566230	BUSHING
51-6	P0566231	SWITCH BUSHING
51-7	PSS07M	SET SCREW M5-.8 X 5
51-8	PN06M	HEX NUT M5-.8
51-9	PLW04M	LOCK WASHER 8MM
51-10	PSB11M	CAP SCREW M8-1.25 X 16
51-11	PFS07M	FLANGE SCREW M5-.8 X 10
51-12	P0566237	COVER
51-13	P0566238	COVER
51-14	P0566239	SPECIAL BOLT
51-15	PFH19M	FLAT HD SCR M4-.7 X 10
51-16	P0566242	RACK
51-17	P0566246	PINION GEAR
103	PLW03M	LOCK WASHER 6MM
116	PW03M	FLAT WASHER 6MM
117	PLN04M	LOCK NUT M8-1.25
118	P0514X2118	SLIDING PLATE
120	PB09M	HEX BOLT M8-1.25 X 20
121	P0514X2121	TRUNNION PLATE
122	PSB12M	CAP SCREW M8-1.25 X 40
125	P0514X125	RESAW FENCE ASSEMBLY
125-1	PH7589001	FIXED BASE 710MM
125-2	PH7587002	ADJUST BASE
125-3	PH7587003	FIXED SHAFT
125-4	PH7587004	SHAFT
125-5	PH7587005	SPRING PIECE
125-6	PH7528004	ADJUSTMENT HANDLE M8 X 44
125-7	PH7589007	SUPPORT TUBE 640MM
125-8	PW01M	FLAT WASHER 8MM
125-9	PH7587009	FENCE HANDLE M8-1.25 X 22
125-10	PH7587010	ADJUST SCREW
125-11	PH7587011	MAGNIFYING WINDOW
125-12	PSB06M	CAP SCREW M6-1 X 25
125-13	PH7587013	PIVOT BLOCK
125-14	PH7589014	SQUARE TUBE 710MM
125-15	PN03M	HEX NUT M8-1.25
125-16	PFS04M	FLANGE SCREW M4-.7 X 6
125-17	PH7587017	GUARD PIECE
125-18	PH7528002	MOVING PLATE
125-19	PH7587019	PLUG
125-20	PHTEK3M	TAP SCREW M3.5 X 8
125-21	PH7588021	SCALE
125-22	PN01M	HEX NUT M6-1
125-23	PLW03M	LOCK WASHER 6MM
125-24	PSB01M	CAP SCREW M6-1 X 16
125-25	PB08M	HEX BOLT M6-1 X 20
125-26	PFB13M	FLANGE BOLT M4-.7 X 8
125-27	PW03M	FLAT WASHER 6MM
125-28	PH7589028	RESAW FENCE (AL) 640MM
125-29	PH7587029	SPACER PLATE
125-30	PH7585030	FENCE PIECE
126	P0514X2126	TABLE 27" X 19"
127	P0513X127	TABLE INSERT
128	P0513X128	TABLE PIN
129	PSB50M	CAP SCREW M5-.8 X 10

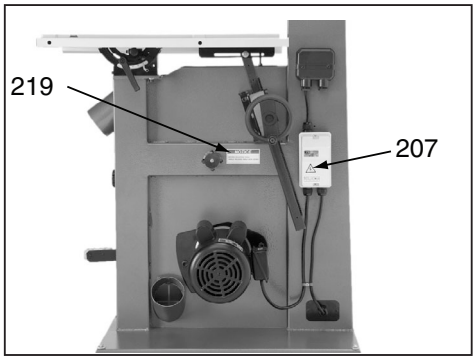
REF	PART #	DESCRIPTION
130	PW02M	FLAT WASHER 5MM
131	P0514X131	PROTECT COVER ASSY
132	P0514X132	STEP SCREW
133	P0513X140	FIBER WASHER 13MM
134	P0513X141	SLIDING PLATE
143	P0513X146	HANDWHEEL
144	PSB02M	CAP SCREW M6-1 X 20
152	P0514X152	UPPER BLADE ADJUSTMENT ASSY
152-1	PSB01M	CAP SCREW M6-1 X 16
152-2	P0513X150-2	UPPER GUIDE SUPPORT BLOCK
152-3	PSS01M	SET SCREW M6-1 X 10
152-4	P0513X150-4	ADJUST BAR
152-5	P0513X150-5	UPPER BLADE GUIDE SUPPORT
152-6	P0513X150-6	BIAS SHAFT

REF	PART #	DESCRIPTION
152-7	PR05M	EXT RETAINING RING 15MM
152-8	P6202ZZ	BALL BEARING 6202ZZ
152-9	P0513X150-9	HANDLE BUSHING
152-10	PSB48M	CAP SCREW M6-1 X 35
152-11	P0513X150-11	UPPER SPACING SLEEVE
153	P0514X153	LOWER BLADE ADJ ASSY
153-5	P0513X151-5	LOWER BLADE GUIDE SUPPORT
153-6	PSB01M	CAP SCREW M6-1 X 16
153-7	P0513X151-7	BIAS SHAFT
153-8	PR05M	EXT RETAINING RING 15MM
153-9	P6202ZZ	BALL BEARING 6202ZZ
153-10	P0513X151-10	HANDLE BUSHING
153-11	PSB48M	CAP SCREW M6-1 X 35
154	P0513X152	MITER GAUGE ASSY

G0514X2/G0514X3 Labels







REF	PART #	DESCRIPTION
201	P0514X2201	G0514X2 MODEL # LABEL
201	P0514X3201	G0514X3 MODEL # LABEL
202	G8589	GRIZZLY LOGO PLATE
203	PLABEL-11	SAFETY GLASSES LABEL
204	PLABEL-20	OPEN DOOR LABEL
205	P0513X205	GUARD ADJ LABEL
206	PLABEL-12	READ MANUAL LABEL
207	PLABEL-14	ELECTRICITY LABEL
208	PLABEL-19	HANDS/BLADE LABEL

REF	PART #	DESCRIPTION
210	PPAINT-1	GRIZZLY GREEN TOUCH UP PAINT
211	P0513X210	EXTREME SERIES PLATE
212	PPAINT-11	PUTTY TOUCH UP PAINT
213	PLABEL-18	DISCONNECT POWER LABEL
214	PLABEL-20	OPEN DOOR LABEL
215	P0513X214	TENSION ADJ LABEL
216	P0514X2216	G0514X2 MACHINE ID LABEL
216	P0514X3216	G0514X3 MACHINE ID LABEL
219	P0514X3219	TABLE LOCK LEVER LABEL

WARRANTY CARD

Name _____

Street _____

City _____ State _____ Zip _____

Phone # _____ Email _____ Invoice # _____

Model # _____ Order # _____ Serial # _____

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. ***Of course, all information is strictly confidential.***

1. How did you learn about us?

____ Advertisement ____ Friend ____ Catalog
____ Card Deck ____ Website ____ Other:

2. Which of the following magazines do you subscribe to?

____ Cabinet Maker
____ Family Handyman
____ Hand Loader
____ Handy
____ Home Shop Machinist
____ Journal of Light Cont.
____ Live Steam
____ Model Airplane News
____ Modeltec
____ Old House Journal
____ Popular Mechanics
____ Popular Science
____ Popular Woodworking
____ Practical Homeowner
____ Precision Shooter
____ Projects in Metal
____ RC Modeler
____ Rifle
____ Shop Notes
____ Shotgun News
____ Today's Homeowner
____ Wood
____ Wooden Boat
____ Woodshop News
____ Woodsmith
____ Woodwork
____ Woodworker West
____ Woodworker's Journal
____ Other:

3. What is your annual household income?

____ $20,000-$29,000 ____ $30,000-$39,000 ____ $40,000-$49,000
____ $50,000-$59,000 ____ $60,000-$69,000 ____ $70,000+

4. What is your age group?

____ 20-29 ____ 30-39 ____ 40-49
____ 50-59 ____ 60-69 ____ 70+

5. How long have you been a woodworker/metalworker?

____ 0-2 Years ____ 2-8 Years ____ 8-20 Years ____ 20+ Years

6. How many of your machines or tools are Grizzly?

____ 0-2 ____ 3-5 ____ 6-9 ____ 10+

7. Do you think your machine represents a good value? _____Yes _____No

8. Would you recommend Grizzly Industrial to a friend? _____Yes _____No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?
Note: *We never use names more than 3 times.* _____Yes _____No

10. Comments: _____

_____

_____

_____

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WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number,'' which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

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